CONTRACT	DESIGNATION
IR-33742	1006075

KIN DES. NUMBERS	
Designation No.	Description
1172100	I-69 NB OVER UNNAMED TRIBUTARY (UNT) OF CLEAR CREEK
1172101	I-69 SB OVER UNNAMED TRIBUTARY (UNT) OF CLEAR CREEK
1172102	I-69 OVER TRIBUTARY OF UNNAMED TRIBUTARY (UNT) OF CLEAR CREEK
1172104	I-69 NB OVER BOLIN LANE
1172105	I-69 SB OVER BOLIN LANE
1172112	S.R. 37 RAMP "SEL-3" OVER I-69
1172113	S.R. 37 RAMP "NWR-3" OVER I-69
1172114	SIGNING AND LIGHTING PLANS

ADJACENT PROJECTS	
Designation No.	Description
0500450	I-69 - HARMONY ROAD TO UNNAMED TRIBUTARY (UNT) OF CLEAR CREEK (STA. 1255+00 TO. 1462+50 LINE "A")

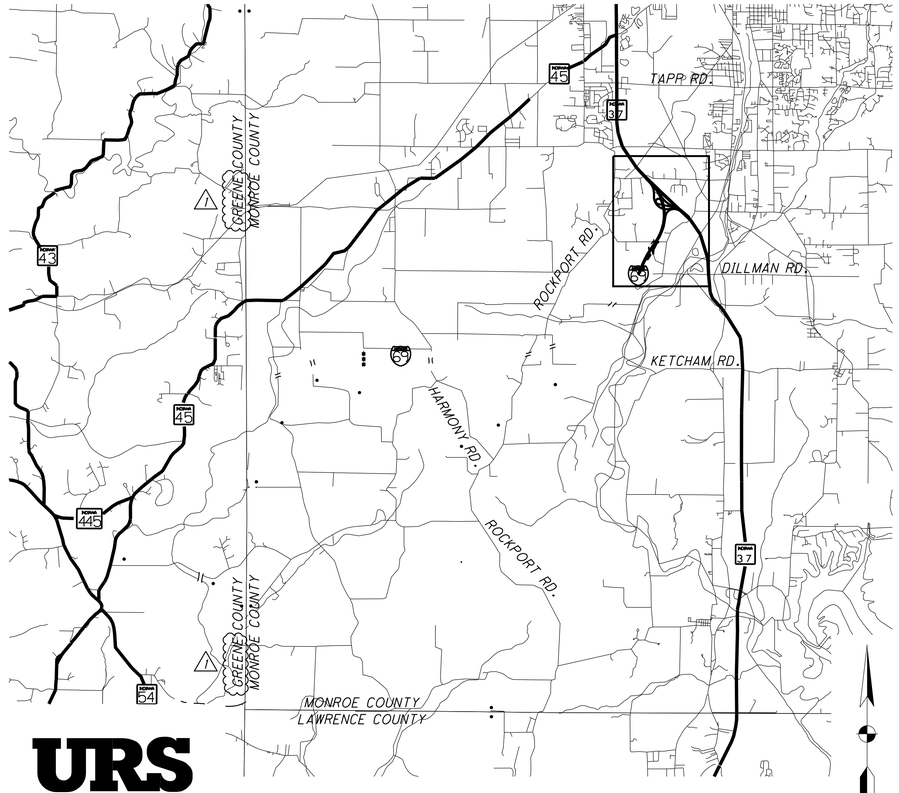
INDIANA DEPARTMENT OF TRANSPORTATION

ROAD PLANS

PROJECT NO. 1006075 PE, RW, CONST.
Route: I-69 From RP 112+88 To RP 114+63

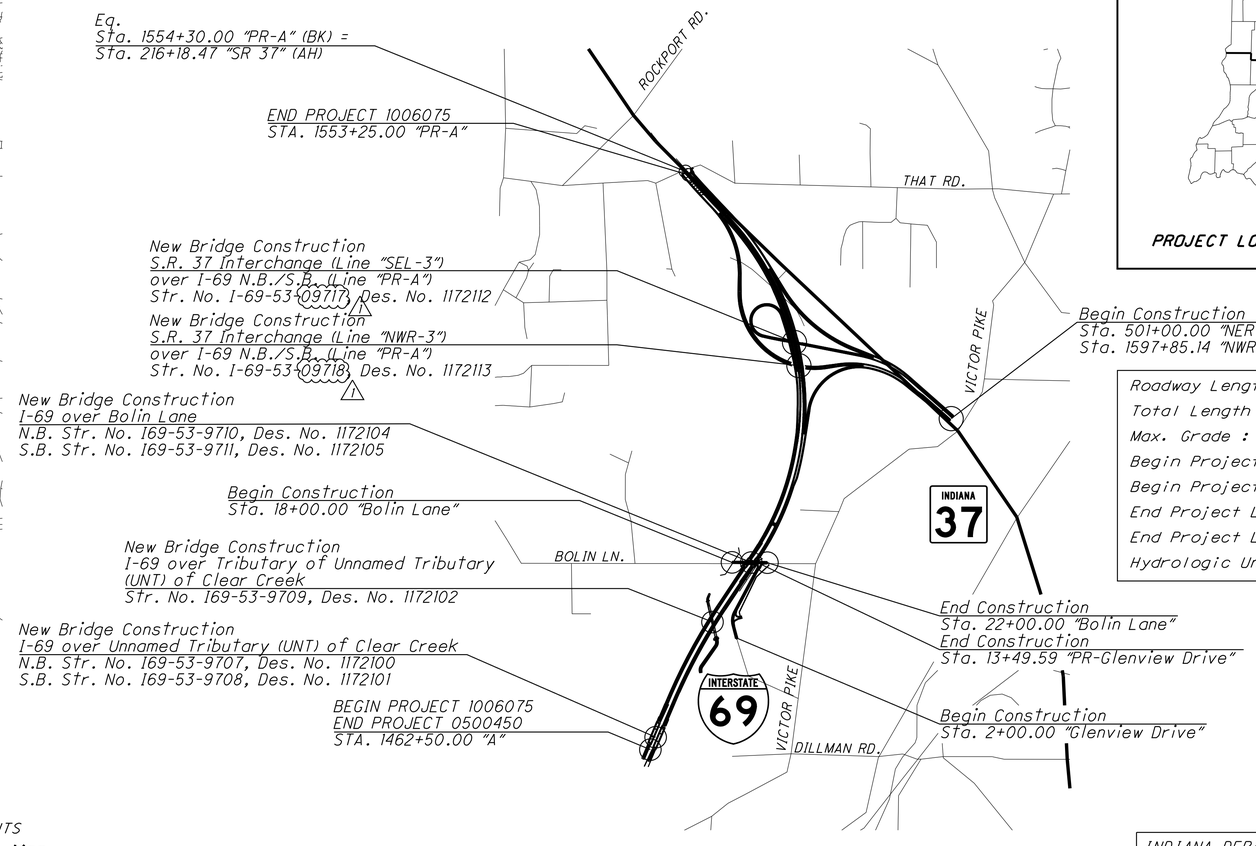
This Project features New Freeway Construction on I-69 from Unnamed Tributary (UNT) of Clear Creek to S.R. 37. The design includes a new full service interchange with four ramps at I-69 / SR 37. This project is located in Sections 19 and 30, Township 8 North, Range 1 West, Perry Township, Monroe County, Indiana.

Note:
For Traffic & Design Data
See Index Sheet on Page IX-01

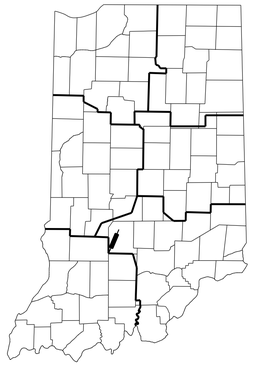


Scale: NTS

Location Map
Monroe County



Roadway Length (I-69):	1.629 mi
Total Length (I-69):	1.719 mi
Max. Grade :	3.240%
Begin Project Latitude:	39° 05′ 34″ N
Begin Project Longitude:	86° 34′ 01″ W
End Project Latitude:	39° 06′ 55″ N
End Project Longitude:	86° 33′ 53″ W
Hydrologic Unit Number:	05120208090020



PROJECT LOCATION SHOWN BY

INDIANA DEPARTMENT OF TRANSPORTATION
STANDARD SPECIFICATIONS DATED 2012
TO BE USED WITH THESE PLANS

URS
One Indiana Square, Suite 2100
Indianapolis, In 46204
317-532-5400

CDM Smith
429 North Pennsylvania Street, Suite 409
Indianapolis, IN 46204
Tel: (317) 829-9600

FEDERAL HIGHWAY ADMINISTRATION
U.S. DEPT. OF TRANSPORTATION
APPROVED: _____ DATE

DIVISION ADMINISTRATOR

ALAN J. DeLAUNAY REGISTERED No. 20175 STATE OF INDIANA PROFESSIONAL ENGINEER

PLANS PREPARED BY: URS Corporation 317-532-5400 PHONE NUMBER
CERTIFIED BY: Alan J. DeLaunay 9/6/2012 DATE
APPROVED FOR LETTING: CHIEF, DIVISION OF DESIGN DATE

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

PLANS PREPARED BY: CDM Smith 317-829-9600 PHONE NUMBER
CERTIFIED BY: Mark D. Orton 9/6/2012 DATE

	BRIDGE FILE
	N/A
	DESIGNATION
	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TS-01	1 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

IR-33742
PART 1 OF 7

DATE: 10/1/2012
TIME: 10:40:58 AM
LOCATION: R:\10141 - I-69 Section 4\Microstation\Sheet Files\2562750RD_TS01_AE.dgn

1 09/25/12 - Miscellaneous revisions

Abbreviations

R/W	Right-of-Way
L.A. R/W	Limited Access Right-of-Way
A.C.L.	Access Control Line
C.L.T.F.	Chain Link Type Fence
F.F.T.F.	Farm Field Type Fence
APP. P.L.	Apparent Property Line
APP. EXIST. R/W	Apparent Existing Right-of-Way
B	Beginning L.A. R/W
E	Ending L.A. R/W
N.E.P.L.	No Evidence of Property Line
s.e. / e	Superelevation
P.G.	Profile Grade
N.B.	Northbound
S.B.	Southbound

General Notes

**	All Earth Shoulders, Median Areas, Cut and Fill Slopes shall be Plain or Mulch Seeded except where Sodding is specified.
**	All existing Storm Drainage Pipes, Inlets, and Manholes shall be removed unless otherwise noted.
**	All Limited Access Right-of-Way (L.A. R/W) is to be fenced with Farm Field Type Fence (F.F.T.F.) or Chain Link Type Fence (C.L.T.F.) and shall be placed in lieu of Right-of-Way Markers, unless otherwise noted.
**	All existing Right-of-Way Fence shall not be disturbed unless otherwise noted.

** Required General Notes

Drawing Index

Utilities

Smithville Communications, Inc.
1600 W. Temperence St.
Elletsville, IN 47429
Mr. Perry Gater
OSP Engineer
pgater@smithville.net
(812) 935-2383

Duke Energy
Mr. Tim Emmel
timothy.emmel@duke-energy.com
(812) 886-3276
1000 E. Main St.
Plainfield, IN 46168
Send copy to:
Mr. Tim Umbaugh
tim.umbaugh@duke-energy.com
(317) 753-8177
1619 W. Deffenbaugh St.
Kokomo, IN 46902

Southern Monroe Water Corp.
(Midwestern Engineers Inc.)
Mr. Michael Mathias
Sr. Project Engineer
mmathias@midwesterneng.com
(812) 295-2800
802 W. Broadway St.
Loogootee, IN 47553
Send copy to:
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Superintendent
(812) 322-4745
5790 S. Fairfax Rd.
Bloomington, IN 47401

Comcast Central Indiana
2450 South Henderson St.
Bloomington, IN 47401
Mr. Scott Templeton
scott_templeton@cable.comcast.com
(812) 822-3262

Vectren Energy Delivery
Mr. Marty Frederick
Public Improvement Project Coordinator
mfrederick@vectren.com
(812) 491-4765
1 North Main Street
Evansville, IN 47702
Mr. Doug Anderson
danderson@vectren.com
(812) 330-4009
205 South Madison
Bloomington, IN 47408

Revisions

Rev. No.	Date	Sheet Number	Description
⚠ 1	09/25/12	Plan Sheets: 1 - 48, 51 - 87, 93 - 96, 98 - 135, 137 - 139-3, 141 - 145, 149 - 173 Cross Section Sheets: 1 - 142, 145 - 164	Miscellaneous revisions

Roadway		Traffic Data					Design Data					
		A.A.D.T. (2014)	A.A.D.T. (2034)	D.H.V. (2034)	Trucks		Design Speed	Design Criteria	Functional Classification	Rural / Urban	Terrain	Access Control
					% A.D.T.	% D.H.V.	M.P.H.					
I-69	Line "A" and "PR-A"	25,635	30,762	2,437	21.00%	13.79%	70	New Construction, Freeway	Rural Freeway	Rural	Rolling	Full Control
I-69	Line "PR-A"	47,938	57,525	4,313	16.30%	11.31%	70	New Construction, Freeway	Urban Freeway	Urban	Rolling	Full Control
I-69/S.R. 37 Ramp	Line "NER-3"	12,234	14,681	1,359	10.67%	6.05%	45	New Construction (4R), Ramp	Ramp	Rural	Rolling	Full Control
I-69/S.R. 37 Ramp	Line "NWR-3"	12,105	14,526	1,270	10.10%	6.31%	50/45	New Construction (4R), Ramp	Ramp	Rural	Rolling	Full Control
I-69/S.R. 37 Ramp	Line "SER-3"	613	735	58	4.84%	3.64%	50/35	New Construction (4R), Ramp	Ramp	Rural	Rolling	Full Control
I-69/S.R. 37 Ramp	Line "SEL-3"	409	491	50	4.46%	4.17%	45/30	New Construction (4R), Ramp	Ramp	Rural	Rolling	Full Control
Bolin Lane	Line "Bolin Lane"	<100	24	-	-	-	35	3R, Non-Freeway	Local	Rural	Rolling	None
Glenview Drive	Line "Glenview Drive", "PR-Glenview Drive", and "PR-2-Glenview Drive"	<100	50	-	-	-	30	3R, Non-Freeway	Local	Rural	Rolling	None

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL ____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INDEX & GENERAL NOTES

HORIZONTAL SCALE	BRIDGE FILE	
N/A	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IX-01	2 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

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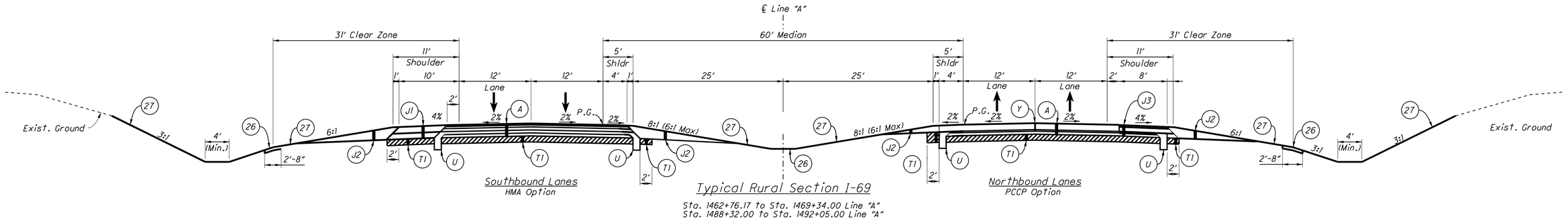
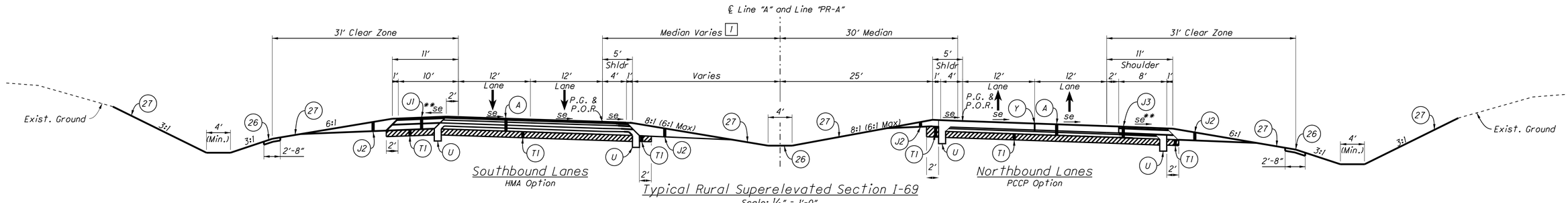
⚠ 1 09/25/12 - Index revisions



Typical Rural Section I-69

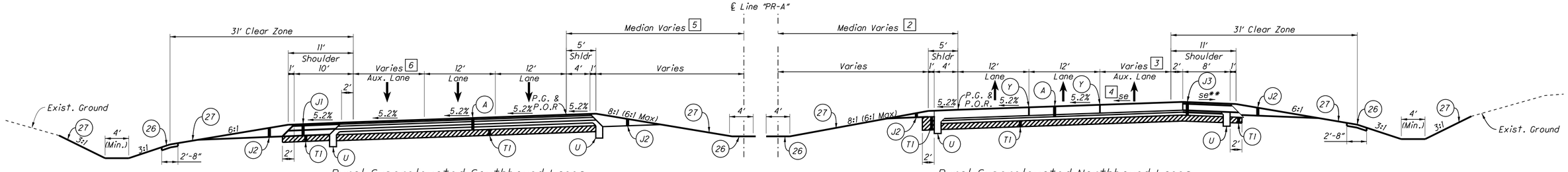
Sta. 1462+76.17 to Sta. 1469+34.00 Line "A"
Sta. 1488+32.00 to Sta. 1492+05.00 Line "A"



Typical Rural Superelevated Section I-69

Scale: 1/8" = 1'-0"
Curves to Left Reversed

Sta. 1462+50.00 to Sta. 1462+76.17 Line "A" se (Lt.) = 6.4% Max.
Sta. 1469+34.00 to Sta. 1488+32.00 Line "A" se (Rt.) = 2.7% Max.
Sta. 1492+05.00 to Sta. 1494+13.78 Line "A" (Back) NB se (Lt.) = 5.2% Max.
Sta. 1494+13.78 Line "PR-A" (Ahead) to Sta. 1506+04.87 Line "PR-A" NB se (Lt.) = 5.2% Max.
Sta. 1492+05.00 to Sta. 1492+76.62 Line "A" SB se (Lt.) = 5.2% Max.
Sta. 1494+13.10 to Sta. 1494+13.78 Line "A" (Back) = 5.2% Max.
Sta. 1494+13.78 Line "PR-A" (Ahead) to Sta. 1513+01.00 SB se (Lt.) = 5.2% Max.



Rural Superelevated Southbound Lanes with Auxiliary Lane

HMA Option

Sta. 1513+01.00 to Sta. 1522+04.53 Line "PR-A" SB se (Lt.) = 5.2% Max.

Rural Superelevated Northbound Lanes with Auxiliary Lane

PCCP Option

Sta. 1506+04.87 to Sta. 1513+22.62 Line "PR-A" NB se (Lt.) = 5.2% Max.

Paving Exceptions

Sta. 1464+18.05 to Sta. 1467+81.39 Line "A" NB
Sta. 1464+50.61 to Sta. 1468+13.95 Line "A" SB
Sta. 1493+34.75 to Sta. 1494+13.78 "A" (Back) NB =
Sta. 1494+13.78 LINE "PR-A" (Ahead) to Sta. 1494+71.24 NB
Sta. 1492+76.62 to Sta. 1494+13.10 Line "A" SB

** For Paved Shoulder Width Greater Than 4':
The Shoulder Slope Shall Be 4% If The Pavement Is At Normal Slope Of 2% Or If The Superelevation Rate Is 4% Or Less.
The Shoulder Slope Shall Be 2% Down From The Traveled Way If The Superelevation Rate Is Greater Than 4% But Less Than Or Equal To 6%.
The Shoulder Slope Shall Be 1% Up From The Traveled Way If The Superelevation Rate Is Greater Than 6%.

(A) OC/OA PCCP, 10.5" on
Subbase For PCCP
(D-1 Joints @ 15' O.C. w/1.5" Dia. Dowel Bars)
or
165 lbs/Sys OC/OA-HMA, S, 76, Surface, 9.5 mm on
275 lbs/Sys OC/OA-HMA, S, 76, Intermediate, 19.0 mm on
330 lbs/Sys OC/OA-HMA, S, 64, Base, 19.0 mm on
250 lbs/Sys OC/OA-HMA, S, 76, Intermediate, OG 19.0 mm on
385 lbs/Sys OC/OA-HMA, S, 64, Base, 19.0 mm

(J1) 165 lbs/Sys OC/OA-HMA, I, 64, Surface 9.5 mm, on
275 lbs/Sys OC/OA-HMA, I, 64, Intermediate 19.0 mm, on
330 lbs/Sys OC/OA-HMA, I, 64, Base 19.0 mm, on
250 lbs/Sys OC/OA-HMA, S, 76, Intermediate OG 19.0 mm, on
385 lbs/Sys OC/OA-HMA, I, 64, Base 19.0 mm

(J2) Compacted Aggregate, No. 53, Variable Depth

(J3) 165 lbs/Sys OC/OA-HMA, I, 64, Surface 9.5 mm, on
330 lbs/Sys OC/OA-HMA, I, 64, Intermediate 19.0 mm, on
660 lbs/Sys OC/OA-HMA, I, 64, Base 25.0 mm, on
Subbase for PCCP

(T1) Subgrade Treatment Type IA or Type IC
(Follow approved Geotechnical Report for locations of recommended/anticipated subgrade treatment in cut areas.)

(U) 6" Underdrain Pipe

(Y) Longitudinal Joint

(26) Sodding

(27) Seeding, R

[1] Sta. 1469+34.00 Line "A" to Sta. 1511+92.50 "PR-A" = 30'
Sta. 1511+92.50 to Sta. 1513+01.00 "PR-A" varies from 30' to 28'-5"

[2] Sta. 1506+04.87 to Sta. 1511+92.50 "PR-A" = 30'
Sta. 1511+92.50 to Sta. 1513+22.62 "PR-A" varies from 30' to 28'-2"

[3] Sta. 1506+04.87 to Sta. 1507+04.87 "PR-A" varies from 0' to 12'
Sta. 1507+04.87 to Sta. 1509+99.31 "PR-A" = 12'
Sta. 1509+99.31 to Sta. 1513+22.62 varies from 12' to 20'

[4] See Superelevation Diagram for se of Auxiliary Lane

[5] Sta. 1513+01.00 to Sta. 1521+96.28 "PR-A" varies from 28'-5" to 15'-8"

[6] Sta. 1513+01.00 to Sta. 1516+66.11 "PR-A" varies from 0' to 12'
Sta. 1516+66.11 to Sta. 1519+70.60 "PR-A" = 12'
Sta. 1519+70.60 to Sta. 1522+04.53 "PR-A" varies from 12' to 18'

Note: All Shoulders On I-69 Shall Have Milled Shoulder Corrugations from Sta. 1462+50.00 "A" to 1494+13.78 "A" (Back) & Sta. 1494+13.78 "PR-A" (Ahead) to 1522+25.00 "PR-A", Per INDOT STD. DWG. E606-SHCG-01, E606-SHCG-02, and E606-SHCG-03

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
I-69 - LINE "A" & LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
1/8" = 1'-0"	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-01	3 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

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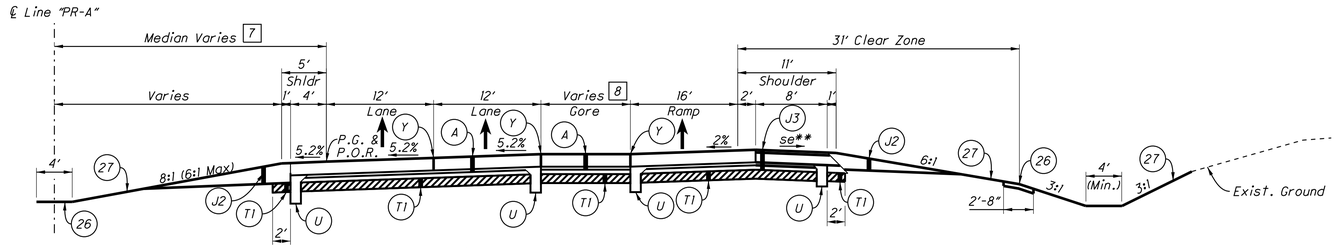
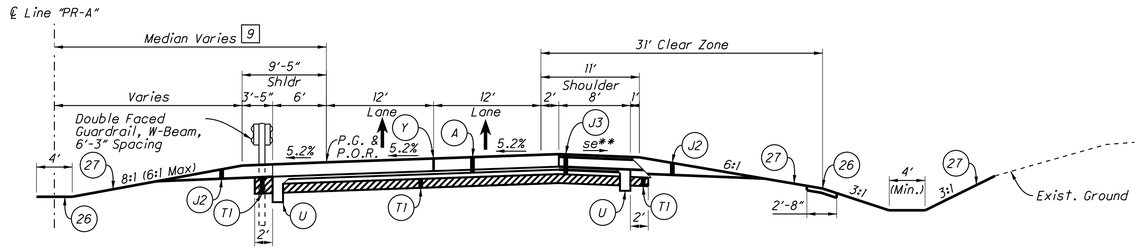
[1] 09/25/12 - Pavement Design



Rural Superelevated Northbound Lanes with Gore and Ramp Lane

PCCP Option

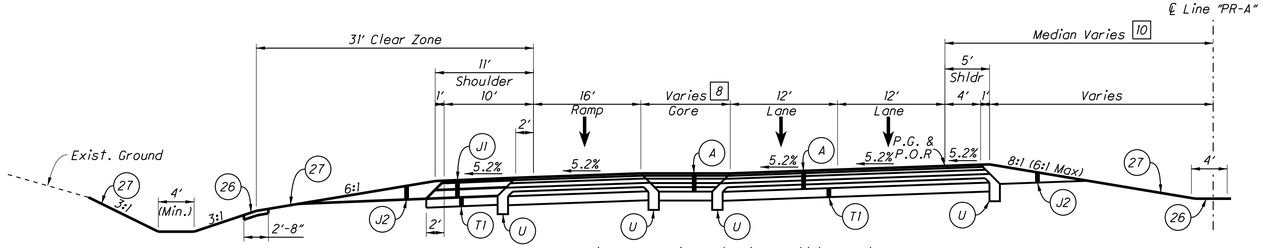
Sta. 1513+22.62 to Sta. 1515+12.31 Line "PR-A" NB se (Lt.) = 5.2% Max.



Rural Superelevated Northbound Lanes

PCCP Option

Sta. 1515+12.31 to Sta. 1522+25.00 Line "PR-A" NB se (Lt.) = 5.2% Max.



Rural Superelevated Southbound Lanes with Auxiliary Lane

HMA Option

Sta. 1522+04.53 to Sta. 1522+25.00 Line "PR-A" SB se (Lt.) = 5.2% Max.

(A) OC/OA PCCP, 10.5" on Subbase For PCCP
(D-1 Joints @ 15' O.C. w/1.5" Dia. Dowel Bars)
or
165 lbs/Sys OC/OA-HMA, 5, 76, Surface, 9.5 mm on
275 lbs/Sys OC/OA-HMA, 5, 76, Intermediate, 19.0 mm on
~~330 lbs/Sys OC/OA-HMA, 5, 64, Base, 19.0 mm on~~
250 lbs/Sys OC/OA-HMA, 5, 76, Intermediate, OG 19.0 mm on
~~385 lbs/Sys OC/OA-HMA, 5, 64, Base, 19.0 mm~~

(J1) 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on
275 lbs/Sys OC/OA-HMA, 1, 64, Intermediate 19.0 mm, on
330 lbs/Sys OC/OA-HMA, 1, 64, Base 19.0 mm, on
250 lbs/Sys OC/OA-HMA, 5, 76, Intermediate OG 19.0 mm, on
385 lbs/Sys OC/OA-HMA, 1, 64, Base 19.0 mm

(J2) Compacted Aggregate, No. 53, Variable Depth

(J3) 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on
330 lbs/Sys OC/OA-HMA, 1, 64, Intermediate 19.0 mm, on
660 lbs/Sys OC/OA-HMA, 1, 64, Base 25.0 mm, on
Subbase for PCCP

(T1) Subgrade Treatment Type 1A or Type 1C
(Follow approved Geotechnical Report for locations of recommended/anticipated subgrade treatment in cut areas.)

(U) 6" Underdrain Pipe

(Y) Longitudinal Joint

(26) Sodding

(27) Seeding, R

** For Paved Shoulder Width Greater Than 4':
The Shoulder Slope Shall Be 4% If The Pavement Is At Normal Slope Of 2% Or If The Superelevation Rate Is 4% Or Less.
The Shoulder Slope Shall Be 2% Down From The Traveled Way If The Superelevation Rate Is Greater Than 4% But Less Than Or Equal To 6%.
The Shoulder Slope Shall Be 1% Up From The Traveled Way If The Superelevation Rate Is Greater Than 6%.

7 Sta. 1513+22.62 to Sta. 1515+12.31 "PR-A" varies from 28'-2" to 25'-5"

8 See Gore Details for more information.

9 Sta. 1515+12.31 to Sta. 1522+25.00 "PR-A" varies from 25'-5" to 15'-3"

10 Sta. 1521+96.28 to Sta. 1522+25.00 "PR-A" varies from 15'-8" to 15'-3"

Note: All Shoulders On I-69 Shall Have Milled Shoulder Corrugations from Sta. 1462+50.00 "A" to 1522+25.00 "PR-A", Per INDOT STD. DWG. E606-SHCG-01, E606-SHCG-02, and E606-SHCG-03

MARK D. ORLICH REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
I-69 - LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	N/A
VERTICAL SCALE	DESIGNATION
1/8" = 1'-0"	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-09	4 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
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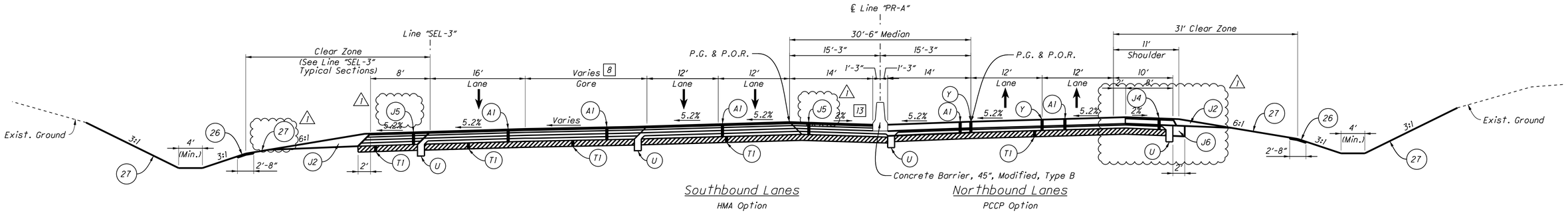
1 09/25/12 - Pavement Design



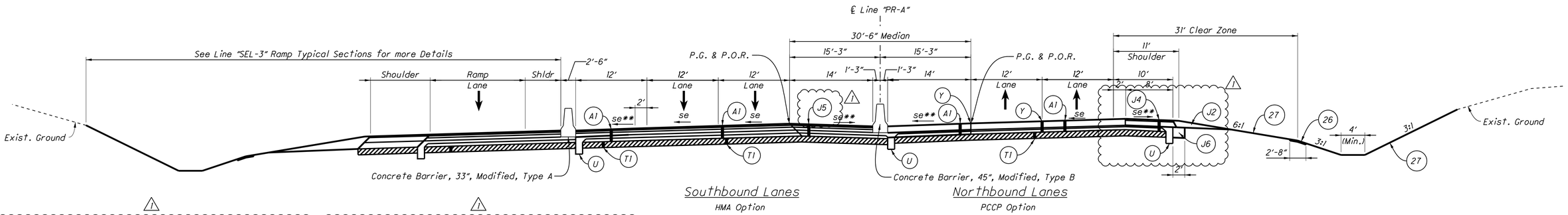
Southbound Lanes
HMA Option

Northbound Lanes
PCCP Option

Typical Urban Superelevated 2-Lane Section I-69 with Collector-Distributor

Scale: 1/8" = 1'-0"

Sta. 1522+25.00 to Sta. 1526+34.92 Line "PR-A" se (Lt.) = 5.2% max.



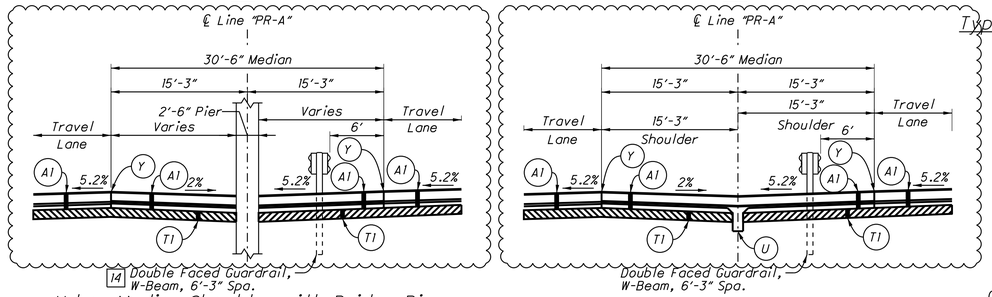
Southbound Lanes
HMA Option

Northbound Lanes
PCCP Option

Typical Urban Superelevated 2-Lane Section I-69 with Collector-Distributor

Scale: 1/8" = 1'-0"

Sta. 1526+34.92 to Sta. 1534+33.63 Line "PR-A" se (Lt.) = 5.2% max.



14 Double Faced Guardrail, W-Beam, 6'-3" Spa.

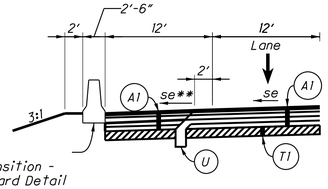
Urban Median Shoulder with Bridge Pier

Not to Scale
PCCP Option
Sta. 1522+44.84 to Sta. 1522+94.34 Line "PR-A"
Sta. 1525+90.56 to Sta. 1526+26.56 Line "PR-A"

Double Faced Guardrail, W-Beam, 6'-3" Spa.

Urban Median Shoulder with Guardrail

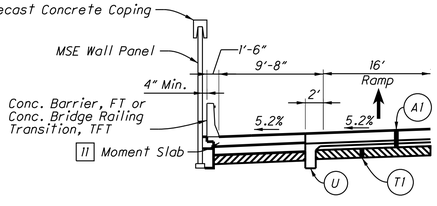
Not to Scale
PCCP Option
Sta. 1522+25.00 to Sta. 1522+44.84 Line "PR-A"



Concrete Barrier (See Barrier Transition - Type A to Standard Detail on Page TY-03)

Outside Shoulder with Barrier Detail

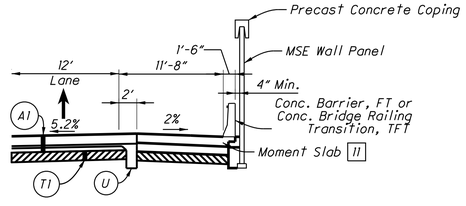
Not to Scale
HMA Option
Sta. 1530+52.77 to Sta. 1534+33.63 Line "PR-A"



11 Moment Slab

Outside Shoulder with MSE Wall Southbound Lanes

Not to Scale
PCCP Option
Sta. 541+90.92 to Sta. 542+49.05 Line "SEL-3"
Sta. 545+33.77 to Sta. 545+98.08 Line "SEL-3"



11 Moment Slab

Outside Shoulder with MSE Wall Northbound Lanes

Not to Scale
PCCP Option
Sta. 1522+22.07 to Sta. 1522+82.45 Line "PR-A"
Sta. 1525+48.86 to Sta. 1526+07.47 Line "PR-A"

(A1) OC/OA, 12" on Subbase For PCCP
(D-1 Joints @ 15' O.C. w/1.5" Dia. Dowel Bars)
or
165 lbs/Sys OC/OA-HMA, 5, 76, Surface, 9.5 mm on
~~275 lbs/Sys OC/OA-HMA, 5, 76, Intermediate, 19.0 mm on~~
385 lbs/Sys OC/OA-HMA, 5, 64, Base, 19.0 mm on
~~300 lbs/Sys OC/OA-HMA, 5, 76, Intermediate, OG 19.0 mm on~~
385 lbs/Sys OC/OA-HMA, 5, 64, Base, 19.0 mm

(J2) Compacted Aggregate, No. 53, Variable Depth

(J4) 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on
275 lbs/Sys OC/OA-HMA, 1, 64, Intermediate 19.0 mm, on
880 lbs/Sys OC/OA-HMA, 1, 64, Base 25.0 mm, on
Subbase for PCCP

(J5) 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on
275 lbs/Sys OC/OA-HMA, 1, 64, Intermediate 19.0 mm, on
385 lbs/Sys OC/OA-HMA, 1, 64, Base 19.0 mm, on
300 lbs/Sys OC/OA-HMA, 5, 76, Intermediate OG 19.0 mm, on
385 lbs/Sys OC/OA-HMA, 1, 64, Base 19.0 mm, on

(J6) Compacted Aggregate, No. 53, 9"

(T1) Subgrade Treatment Type IA or Type IC (Follow approved Geotechnical Report for locations of recommended/anticipated subgrade treatment in cut areas.)

(U) 6" Underdrain Pipe

(Y) Longitudinal Joint

(26) Sodding

(27) Seeding, R

** For Paved Shoulder Width Greater Than 4':
The Shoulder Slope Shall Be 4% If The Pavement Is At Normal Slope Of 2% Or If The Superelevation Rate Is 4% Or Less.
The Shoulder Slope Shall Be 2% Down From The Traveled Way If The Superelevation Rate Is Greater Than 4% But Less Than Or Equal To 6%.
The Shoulder Slope Shall Be 1% Up From The Traveled Way If The Superelevation Rate Is Greater Than 6%.

8 See Gore Details for more information.
11 See Shoulder Adjacent to MSE Wall Details on Sheet 16
13 See Urban Median Shoulder Details for more information.
14 Double Faced Guardrail located only from Sta. 1522+44.84 to Sta. 1522+94.34 "PR-A"

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KEH
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
I-69 - LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-02	5 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:03 AM
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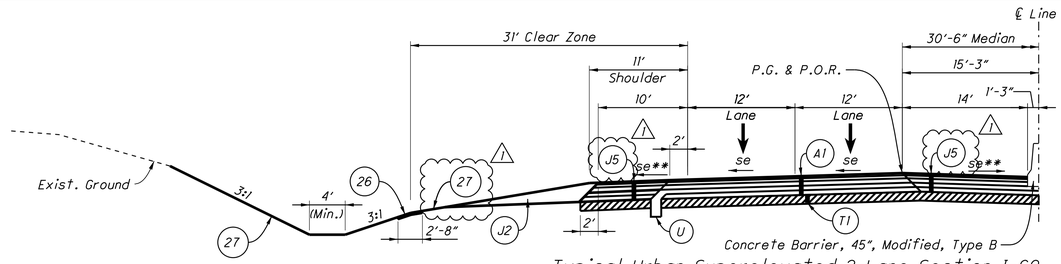
1 09/25/12 - Miscellaneous revisions



Typical Urban Superelevated 2-Lane Section I-69 Southbound Lanes

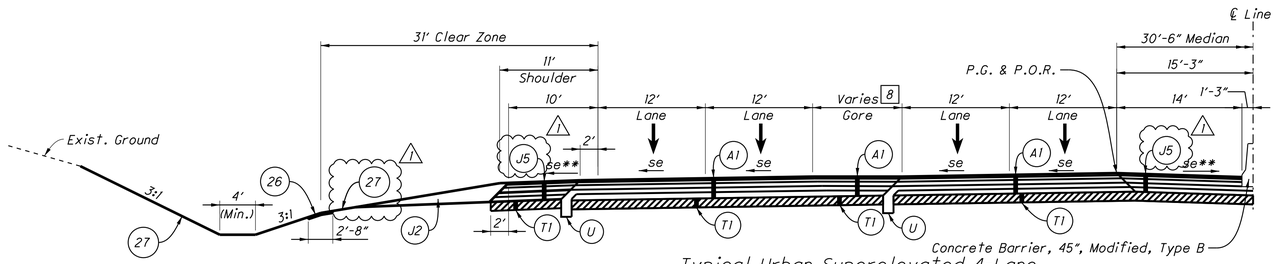
HMA Option

Sta. 1534+33.63 to Sta. 1546+15.99 Line "PR-A" SB, se (Lt.) = 5.2% max

Typical Urban Superelevated 4-Lane Section I-69 with Gore Northbound Lanes

PCCP Option

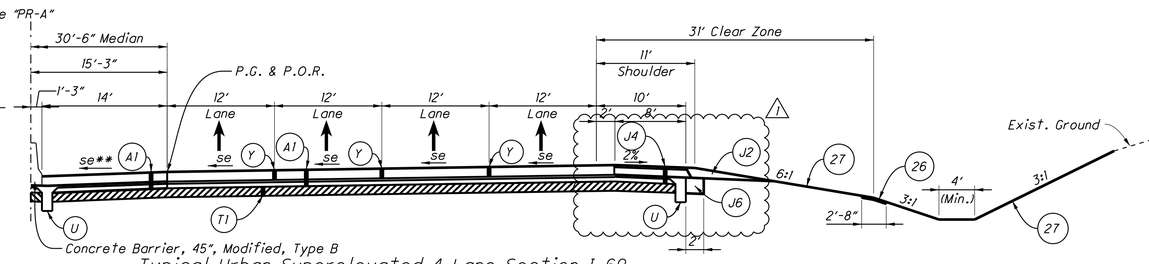
Sta. 1534+33.63 to Sta. 1536+98.54 Line "PR-A" NB, se (Lt.) = 5.2% max



Typical Urban Superelevated 4-Lane Section I-69 with Gore Southbound Lanes

HMA Option

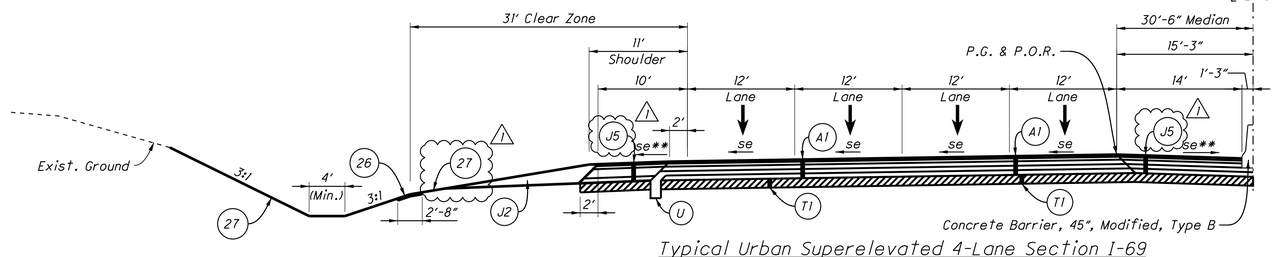
Sta. 1546+15.99 to Sta. 1547+43.15 Line "PR-A" SB, se (Lt.) = 5.2% max



Typical Urban 4-Lane Section I-69 Northbound Lanes

PCCP Option

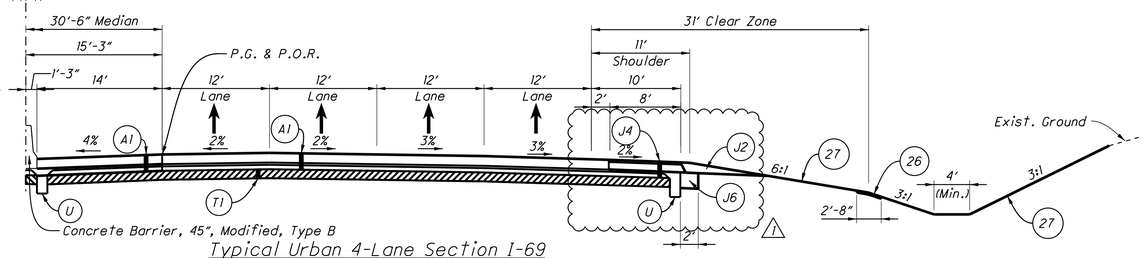
Sta. 1536+98.54 to Sta. 1553+25.00 Line "PR-A" NB, se (Lt.) = 5.2% max



Typical Urban Superelevated 4-Lane Section I-69 Southbound Lanes

HMA Option

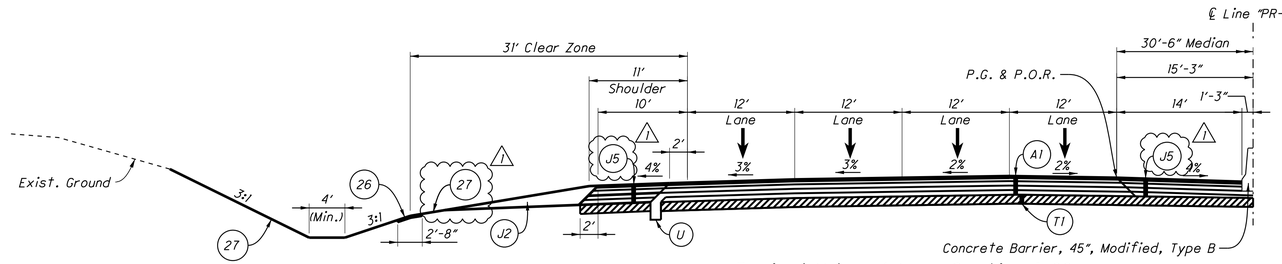
Sta. 1547+43.15 to Sta. 1549+00.00 Line "PR-A" SB, se (Lt.) = 5.2% max



Typical Urban 4-Lane Section I-69 Northbound Lanes

PCCP Option

Sta. 1553+25.00 Line "PR-A" NB



Typical Urban 4-Lane Section I-69 Southbound Lanes

HMA Option

Sta. 1549+00.00 to Sta. 1553+25.00 Line "PR-A" SB

A1 OC/OA, 12" on Subbase For PCCP (D-1 Joints @ 15' O.C. w/1.5" Dia. Dowel Bars) or 165 lbs/Sys OC/OA-HMA, 5, 76, Surface, 9.5 mm on 275 lbs/Sys OC/OA-HMA, 5, 76, Intermediate, 19.0 mm on 385 lbs/Sys OC/OA-HMA, 5, 64, Base, 19.0 mm on 300 lbs/Sys OC/OA-HMA, 5, 76, Intermediate, OG 19.0 mm on 385 lbs/Sys OC/OA-HMA, 5, 64, Base, 19.0 mm

J2 Compacted Aggregate, No. 53, Variable Depth

J4 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on 275 lbs/Sys OC/OA-HMA, 1, 64, Intermediate 19.0 mm, on 880 lbs/Sys OC/OA-HMA, 1, 64, Base 25.0 mm, on Subbase for PCCP

J5 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on 275 lbs/Sys OC/OA-HMA, 1, 64, Intermediate 19.0 mm, on 385 lbs/Sys OC/OA-HMA, 1, 64, Base 19.0 mm, on 300 lbs/Sys OC/OA-HMA, 5, 76, Intermediate OG 19.0 mm, on 385 lbs/Sys OC/OA-HMA, 1, 64, Base 19.0 mm, on

J6 Compacted Aggregate, No. 53, 9"

T1 Subgrade Treatment Type IA or Type IC (Follow approved Geotechnical Report for locations of recommended/anticipated subgrade treatment in cut areas.)

U 6" Underdrain Pipe

Y Longitudinal Joint

26 Sodding

27 Seeding, R

8 See Gore Details for more information.

** For Paved Shoulder Width Greater Than 4':
The Shoulder Slope Shall Be 4% If The Pavement Is At Normal Slope Of 2% Or If The Superelevation Rate Is 4% Or Less.
The Shoulder Slope Shall Be 2% Down From The Traveled Way If The Superelevation Rate Is Greater Than 4% But Less Than Or Equal To 6%.
The Shoulder Slope Shall Be 1% Up From The Traveled Way If The Superelevation Rate Is Greater Than 6%.

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: KEH

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
I-69 - LINE "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-10	6 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
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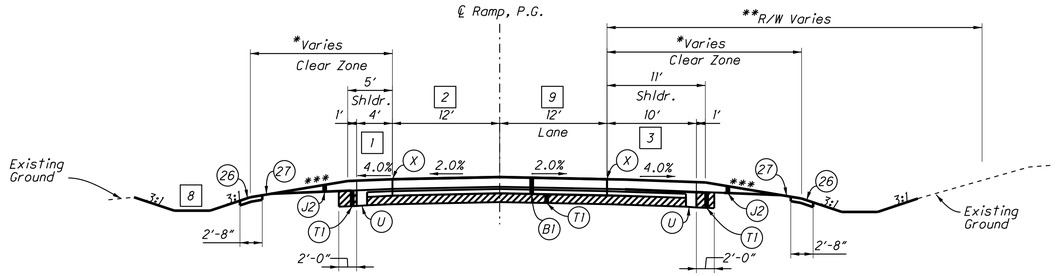
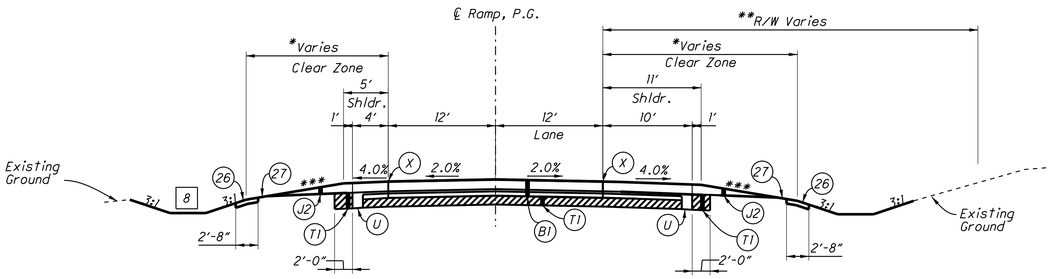
1 09/25/12 - Miscellaneous revisions



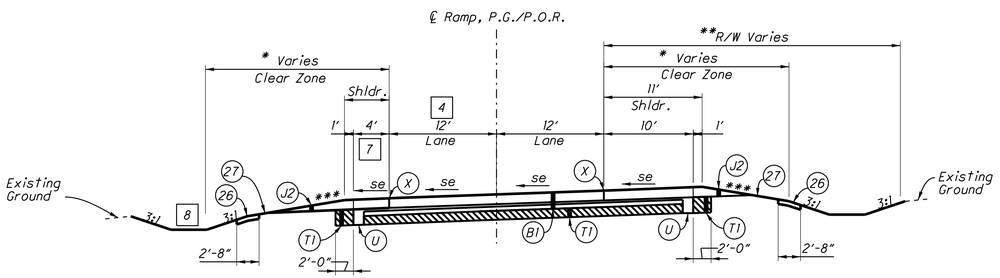
Typical Section - Ramp "NER-3"

Sta. 500+00.00 To Sta. 501+00.00 Line "NER-3"



Typical Section - Ramp "NER-3"

Sta. 501+00.00 to Sta. 506+89.00 Line "NER-3"
Sta. 515+28.81 to Sta. 515+56.00 Line "NER-3"



Typical Superelevated Section - Ramp "NER-3"

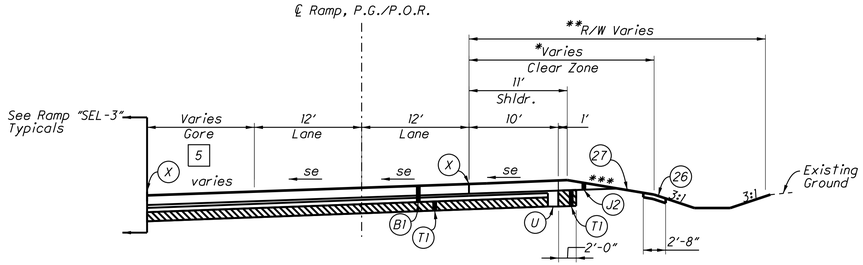
(Reverse As Needed)

Sta. 506+89.00 to Sta. 513+90.65 Line "NER-3"
Sta. 515+56.00 to Sta. 530+92.00 Line "NER-3"

* See Mainline Typical Section.

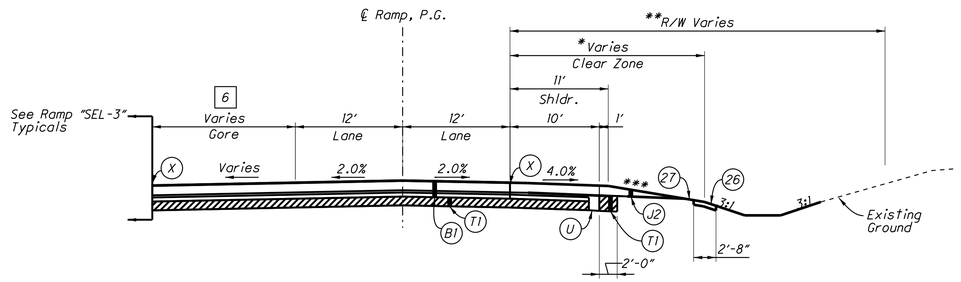
Typical Superelevated Section - Ramp "NER-3"

Sta. 530+92.00 to Sta. 533+08.07 Line "NER-3"



Typical Superelevated Section - Ramp "NER-3"

Sta. 513+91.00 to Sta. 514+86.00 Line "NER-3"



Typical Section - Ramp "NER-3"

Sta. 514+86.00 To Sta. 515+28.81 Line "NER-3"

* See Clear Zone Table On The Typical Detail Sheet TY-07 For Actual Lengths (Sheet 13)
** See Cross Sections For Specific Dimensions
*** Grade Varies (6:1 Max), See Cross Sections For Specific Grade & Locations

(B1) OC/OA, 10.5" on
Subbase For PCCP
(D-1 Joints @ 16' O.C. w/ 1.5" Dia. Dowel Bars)
OR
165 lb/Sys OC/OA-HMA, 4, 76, Surface 9.5 mm, on
275 lb/Sys OC/OA-HMA, 4, 76, Intermediate 19.0 mm, on
330 lb/Sys OC/OA-HMA, 4, 64, Base 19.0 mm, on
250 lb/Sys OC/OA-HMA, 5, 76, Intermediate OG19.0 mm, on
330 lb/Sys OC/OA-HMA, 4, 64, Base 19.0 mm

(J2) Compacted Aggregate, No. 53, Variable Depth
(T1) Subgrade Treatment, Type IA
(U) 6" Underdrain Pipe
(X) Construction Joint
(26) Sodding
(27) Seeding, R

[1] Varies 7' To 4'
Sta. 500+00.00 To Sta. 501+00.00 "NER-3"

[2] Varies 12.2' To 12'
Sta. 500+00.00 To 501+00.00 "NER-3"

[3] Varies 9.5' To 10'
Sta. 500+00.00 To Sta. 501+00.00 "NER-3"

[4] Varies 12' To 32'
Sta. 507+90.18 To Sta. 513+90.65 "NER-3"

[5] Varies 4' To 13'
Sta. 513+90.65 To Sta. 514+86.00 "NER-3"

[6] Varies 13' To 18'
Sta. 514+86.00 To Sta. 515+28.81 "NER-3"

[7] Guardrail with 6' Applies
Sta. 515+29.00 To Sta. 517+03.69 "NER-3"

[8] 6:1 Special V-Ditch Applies
Sta. 515+37.00 To Sta. 517+08.00 "NER-3"

[9] Varies 12.2' To 12'
Sta. 500+00.00 To Sta. 501+00.00 "NER-3"

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS RAMPS "NER-3"

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'	
VERTICAL SCALE	DESIGNATION
	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	TY-01 — 7 of 173
CONTRACT	PROJECT
IR-33742	1006075

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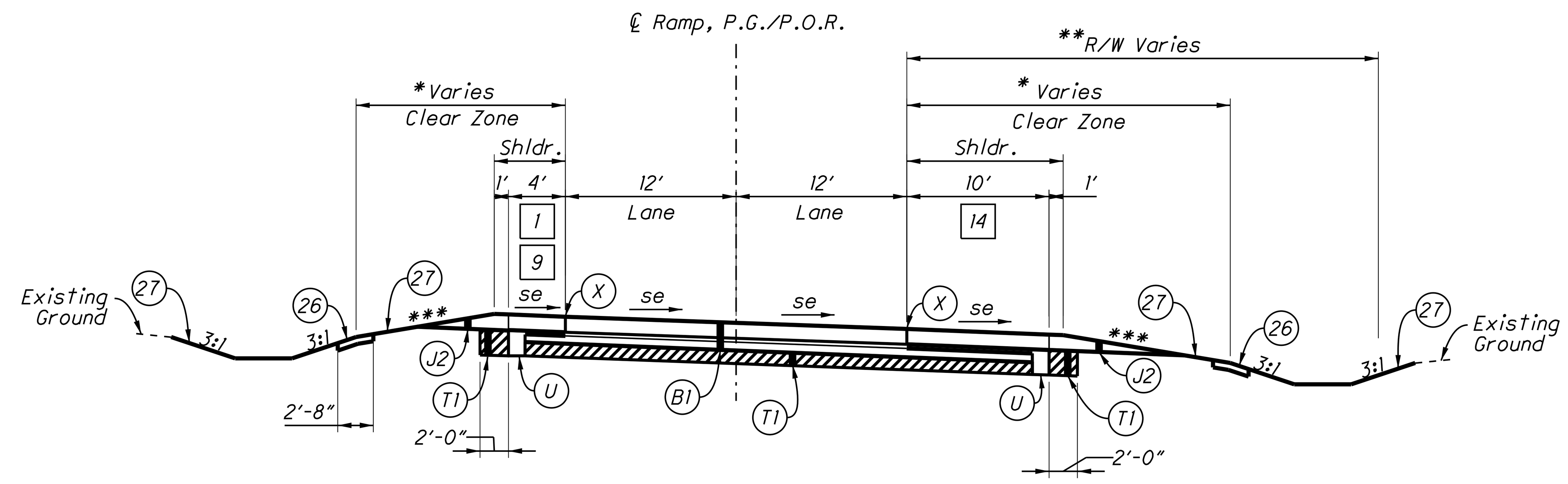
1 9/25/12 - Revised Typicals

* See Mainline Typical Section.

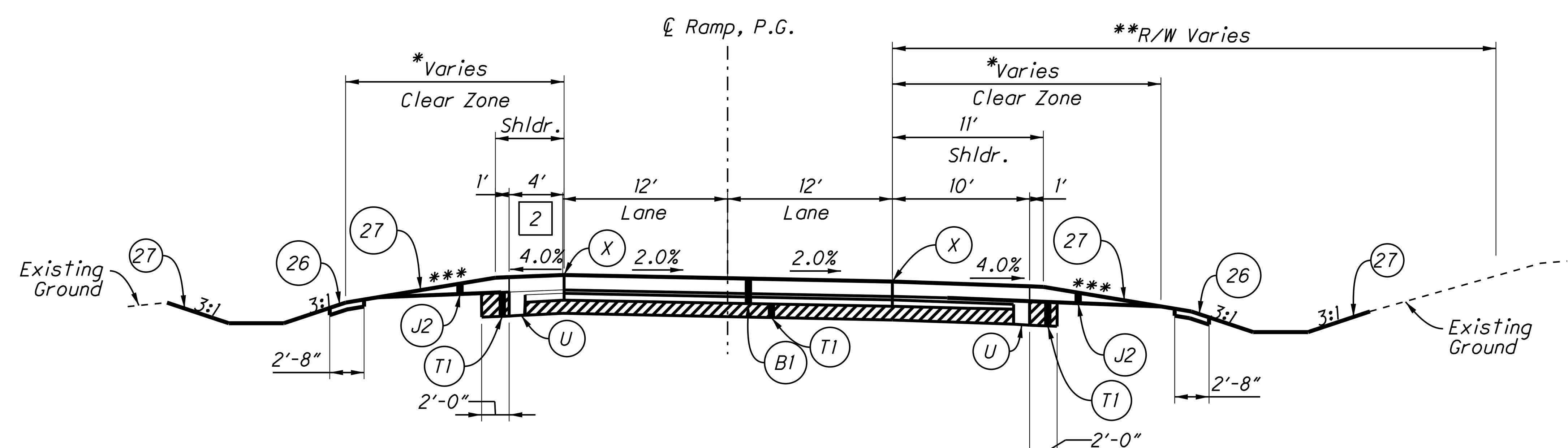
Typical Superelevated Section - Ramp "NWR-3"

Sta. 1548+30.51 to Sta. 1550+41.00 Line "NWR-3"



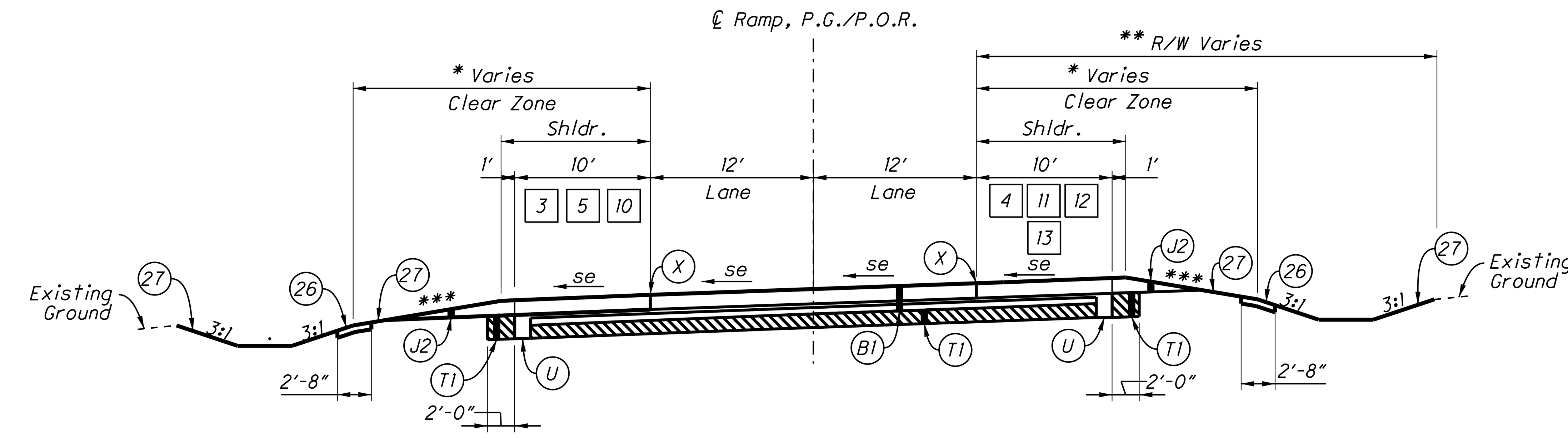
Typical Superelevated Section - Ramp "NWR-3"

Sta. 1550+41.00 to Sta. 1559+32.00 Line "NWR-3"
Sta. 1579+88.74 to Sta. 1582+81.32 Line "NWR-3"



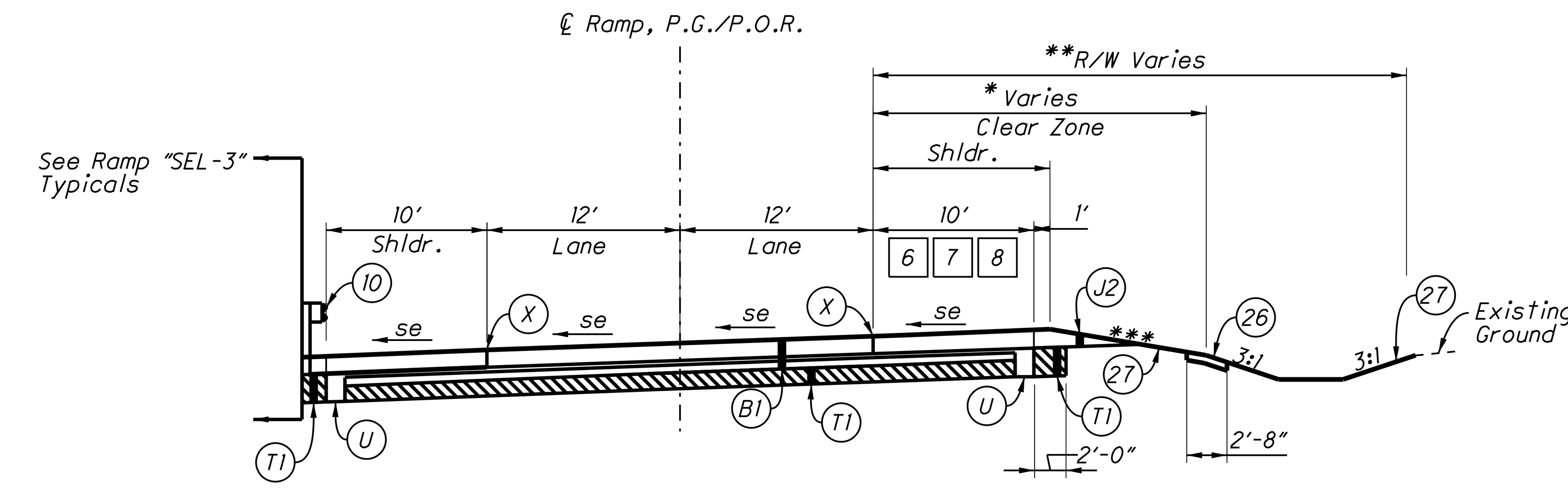
Typical Section - Ramp "NWR-3"

Sta. 1559+32.00 To Sta. 1560+00.00 Line "NWR-3"



Typical Superelevated Section - Ramp "NWR-3"

Sta. 1560+00.00 to Sta. 1562+82.90 Line "NWR-3"
Sta. 1576+14.15 to Sta. 1579+88.74 Line "NWR-3"



Typical Superelevated Section with Guardrail - Ramp "NWR-3"

Sta. 1562+82.90 to Sta. 1564+19.83 Line "NWR-3"
Sta. 1568+36.30 to Sta. 1574+05.83 Line "NWR-3"

Paving Exception

Sta. 1574+05.83 To Sta. 1576+14.15 "NWR-3"

1. Varies 4' To 6.2' Sta. 1558+49.08 To Sta. 1559+32.00 "NWR-3"
2. Varies 6.2' To 8' Sta. 1559+32.00 To Sta. 1560+00.00 "NWR-3"
3. Varies 8' To 10' Sta. 1560+00.00 To Sta. 1560+75.66 "NWR-3"
4. Varies 10.5' To 10' Sta. 1576+14.15 To Sta. 1576+52.61 "NWR-3"
5. Varies 10' To 7.2' Sta. 1579+14.89 To Sta. 1579+88.74 "NWR-3"
6. Guardrail With 12' Shoulder Applies Sta. 1572+81.16 To Sta. 1573+89.89 "NWR-3"
7. Guardrail Applies Varies 12' To 10.5' Sta. 1573+89.89 To Sta. 1574+03.29 "NWR-3"
8. Guardrail With 10.5' Applies Sta. 1574+03.29 To Sta. 1574+05.83 "NWR-3"
9. Varies 7.2' To 4' Sta. 1579+88.74 To Sta. 1581+04.94 "NWR-3"
10. Guardrail with 10' Applies Sta. 1561+36.07 To Sta. 1562+82.90 "NWR-3"
11. Guardrail with 10.5' Applies Sta. 1576+14.15 To Sta. 1576+38.62 "NWR-3"
12. Guardrail Applies Varies 10.5' to 12' Sta. 1576+38.62 To Sta. 1576+52.61 "NWR-3"
13. Guardrail with 12' Applies Sta. 1576+52.61 To Sta. 1579+88.74 "NWR-3"
14. Guardrail with 12' Applies Sta. 1579+88.74 To Sta. 1581+99.81 "NWR-3"

* See Clear Zone Table On The Typical Detail Sheet TY-07 For Actual Lengths (Sheet 13)
** See Cross Sections For Specific Dimensions
*** Grade Varies (6:1 Max), See Cross Sections For Specific Grade & Locations

(B1) QC/QA, 10.5" on Subbase For PCCP (D-1 Joints @ 16' O.C. w/ 1.5" Dia. Dowel Bars) OR 165 lb/Sys QC/QA-HMA, 4, 76, Surface 9.5 mm, on 275 lb/Sys QC/QA-HMA, 4, 76, Intermediate 19.0 mm, on 330 lb/Sys QC/QA-HMA, 4, 64, Base 19.0 mm, on 250 lb/Sys QC/QA-HMA, 5, 76, Intermediate OG19.0 mm, on 330 lb/Sys QC/QA-HMA, 4, 64, Base 19.0 mm

(C) Concrete, C, Railing
(J2) Compacted Aggregate, No. 53, Variable Depth
(T1) Subgrade Treatment, Type IA
(U) 6" Underdrain Pipe
(X) Construction Joint
(10) W-Beam Guardrail
(26) Sodding
(27) Seeding, R

William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL	[signature] DESIGN ENGINEER	9/4/2012 DATE	
DESIGNED:	JB	DRAWN:	ETD
CHECKED:	RT	CHECKED:	WJW

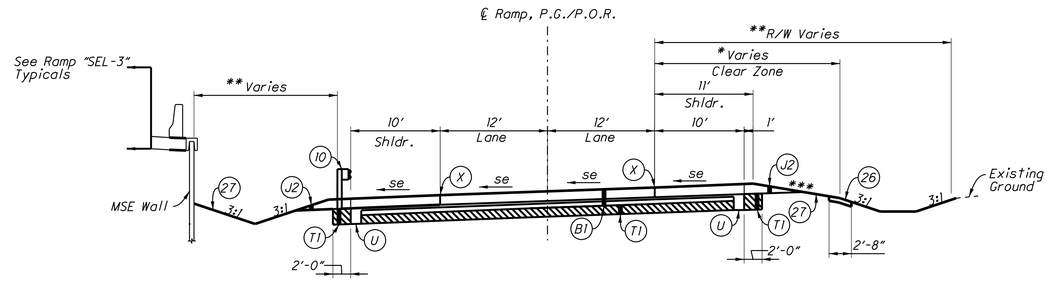
INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS RAMP "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'	
VERTICAL SCALE	DESIGNATION
	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	TY-02 / 8 of 173
CONTRACT	PROJECT
IR-33742	1006075

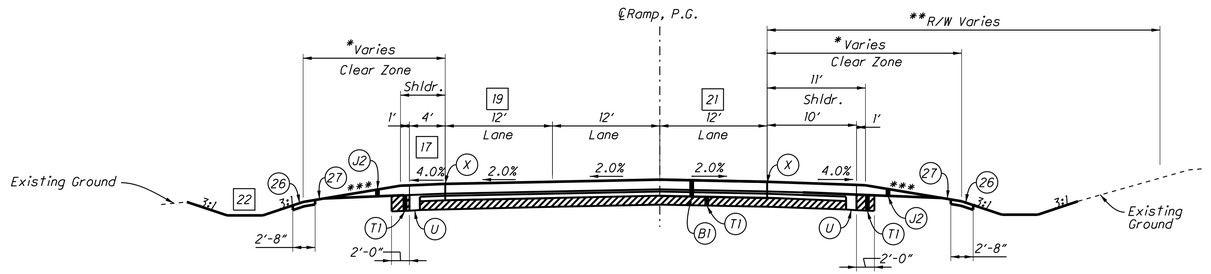
DATE: 10/2/2012
LOCATION: N:\Projects\2562750\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\3_Typicals\2562750OT02-S9_NWR.dgn

1 9/25/12 - Revised Typicals



Typical Superelevated Section with Wall - Ramp "NWR-3"

Sta. 1564+19.83 to Sta. 1568+36.30 Line "NWR-3"

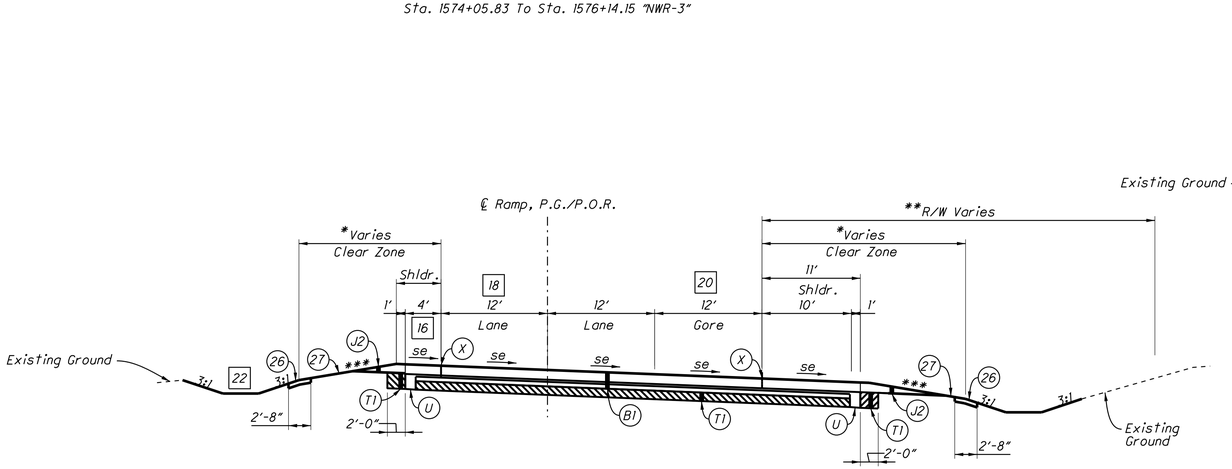


Typical Section - Ramp "NWR-3"

Sta. 1593+09.00 to Sta. 1597+85.14 Line "NWR-3"

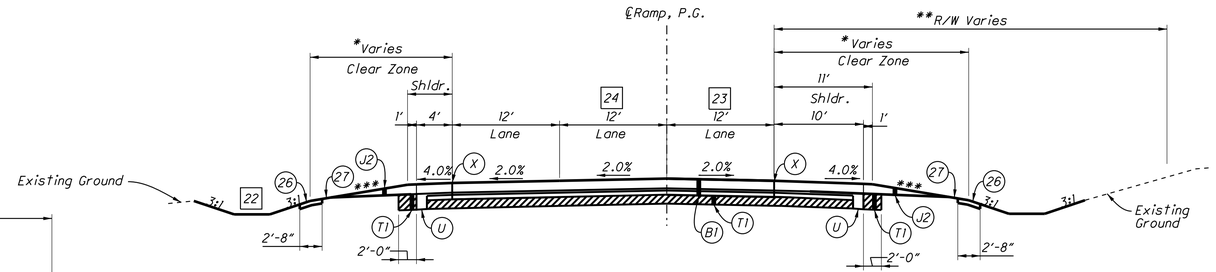
Paving Exception

Sta. 1574+05.83 To Sta. 1576+14.15 "NWR-3"



Typical Superelevated Section - Ramp "NWR-3"

Sta. 1582+81.00 to Sta. 1593+09.00 Line "NWR-3"



Typical Section - Ramp "NWR-3"

Sta. 1597+85.14 To Sta. 1599+69.39 Line "NWR-3"

*See Clear Zone Table On The Typical Detail Sheet TY-07 For Actual Lengths (Sheet 13)
** See Cross Sections For Specific Dimensions
***Grade Varies (6:1 Max), See Cross Sections For Specific Grade & Locations

(B1) OC/OA, 10.5" on Subbase For PCCP (D-1 Joints @ 16' O.C. w/ 1.5" Dia. Dowel Bars) OR 165 lb/Sys OC/OA-HMA, 4, 76, Surface 9.5 mm, on 275 lb/Sys OC/OA-HMA, 4, 76, Intermediate 19.0 mm, on 330 lb/Sys OC/OA-HMA, 4, 64, Base 19.0 mm, on 250 lb/Sys OC/OA-HMA, 5, 76, Intermediate OG19.0 mm, on 330 lb/Sys OC/OA-HMA, 4, 64, Base 19.0 mm

(J2) Compacted Aggregate, No. 53, Variable Depth

(T1) Subgrade Treatment, Type IA

(M) 8.5" Concrete Moment Slab

(W) MSE Wall

(U) 6" Underdrain Pipe

(X) Construction Joint

(10) W-Beam Guardrail

(26) Sodding

(27) Seeding, R

16 Varies 4' To 8'
Sta. 1592+74.90 To Sta. 1593+09.00 "NWR-3"

17 Varies 8' To 16'
Sta. 1593+09.00 To Sta. 1593+74.31 "NWR-3"

18 Varies 12' To 4'
Sta. 1592+75.14 To Sta. 1593+09.00 "NWR-3"

19 Varies 4' To 12'
Sta. 1593+09.00 To Sta. 1593+74.56 "NWR-3"

20 Varies 12' To 6.3'
Sta. 1591+64.23 To Sta. 1593+09.00 "NWR-3"

21 Varies 6.3' To 0'
Sta. 1593+09.00 To Sta. 1594+64.72 "NWR-3"

22 6:1 Special V-Ditch Applies
Sta. 1590+72.00 To Sta. 1598+85.00 "NWR-3"

23 Varies 12' To 13.3'
Sta. 1597+85.14 To Sta. 1599+69.39 "NWR-3"

24 Varies 12' To 11.3'
Sta. 1597+85.14 To Sta. 1599+69.39 "NWR-3"

William James Williams, Registered No. 10810125 State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB DRAWN: ETD

CHECKED: RT CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS RAMP "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'	
VERTICAL SCALE	DESIGNATION
	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-03	9 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

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TIME: 10:39:58 AM
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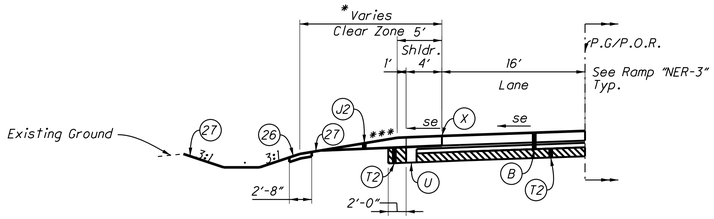
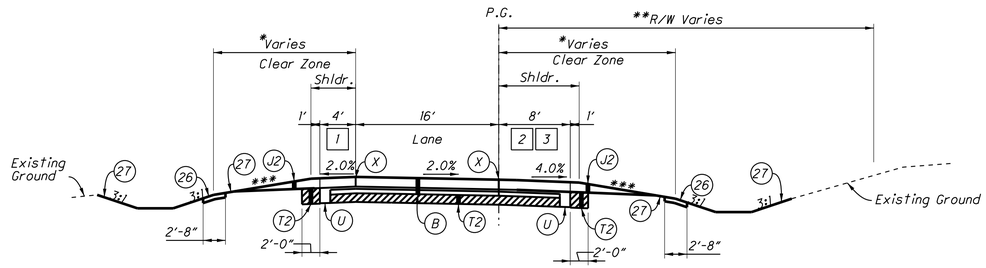
1 9/25/12 - Revised Typicals



Typical Superelevated Section - Ramp "SEL-3"

Sta. 513+90.65 to Sta. 515+29.00 Line "SEL-3"

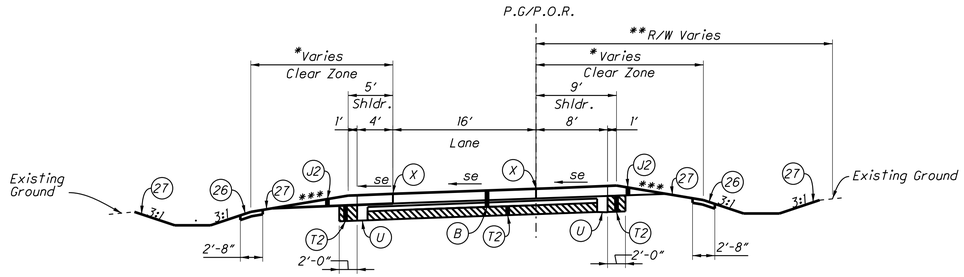


Typical Section - Ramp "SEL-3"

Sta. 517+72.00 to Sta. 524+18.31 Line "SEL-3"

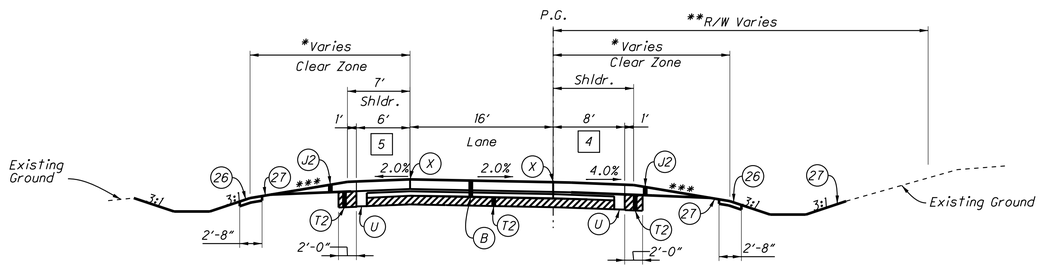
Paving Exception

Sta. 524+18.31 To Sta. 526+42.34 "SEL-3"



Typical Superelevated Section - Ramp "SEL-3"

Sta. 515+29.00 to Sta. 517+72.00 Line "SEL-3"



Typical Section - Ramp "SEL-3"

Sta. 526+42.34 to Sta. 526+90.00 Line "SEL-3"

* See Clear Zone Table On The Typical Detail Sheet TY-07 For Actual Lengths (Sheet 13)
** See Cross Sections For Specific Dimensions
*** Grade Varies (6:1 Max), See Cross Sections For Specific Grade & Locations

(B) OC/OA, 8.5" on Subbase For PCCP
(D-1 Joints @ 16' O.C. w/ 1" Dia. Dowel Bars)
OR
165 lb/Sys OC/OA-HMA, 2, 70, Surface 9.5 mm, on
275 lb/Sys OC/OA-HMA, 2, 70, Intermediate 19.0 mm, on
330 lb/Sys OC/OA-HMA, 2, 64, Base 19.0 mm, on
250 lb/Sys OC/OA-HMA, 5, 76, Intermediate OG19.0 mm, on
330 lb/Sys OC/OA-HMA, 2, 64, Base 19.0 mm

(J2) Compacted Aggregate, No. 53, Variable Depth
(T2) Subgrade Treatment, Type IIA
(U) 6" Underdrain Pipe
(X) Construction Joint
(26) Sodding
(27) Seeding, R

1 Guardrail With 6' Shoulder Applies
Sta. 522+93.91 To Sta. 524+18.31 "SEL-3"

2 Guardrail With 10' Shoulder Applies
Sta. 523+09.43 To Sta. 523+99.42 "SEL-3"

3 Guardrail With 9.5' Shoulder Applies
Sta. 524+09.43 To Sta. 524+18.31 "SEL-3"

4 Guardrail With 10' Shoulder Applies
Sta. 526+41.74 To Sta. 526+90.00 "SEL-3"

5 Guardrail With 6' Shoulder Applies
Sta. 526+26.22 To Sta. 527+51.22 "SEL-3"

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS RAMP "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'	
VERTICAL SCALE	DESIGNATION
	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-04	10 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:39:58 AM
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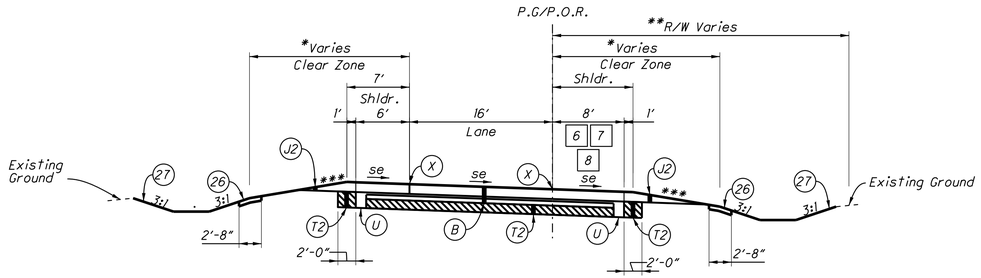
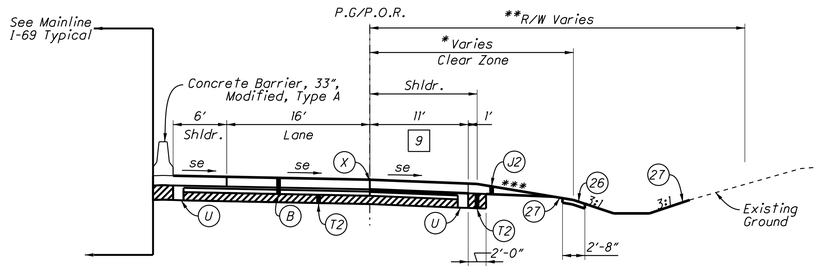
1 9/25/12 - Revised Typicals



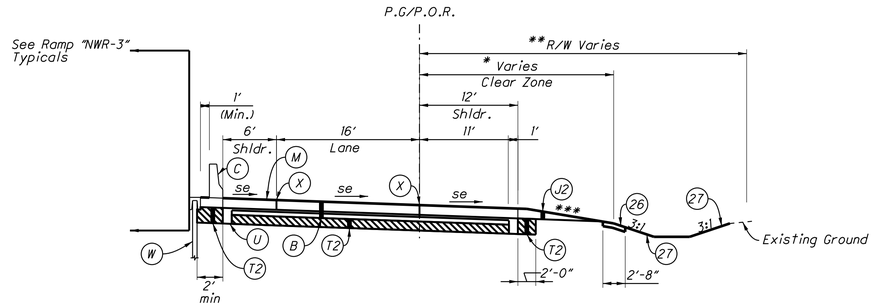
Typical Superelevated Section - Ramp "SEL-3"

Sta. 526+90.00 to Sta. 529+67.00 Line "SEL-3"
Sta. 533+48.00 to Sta. 538+32.70 Line "SEL-3"



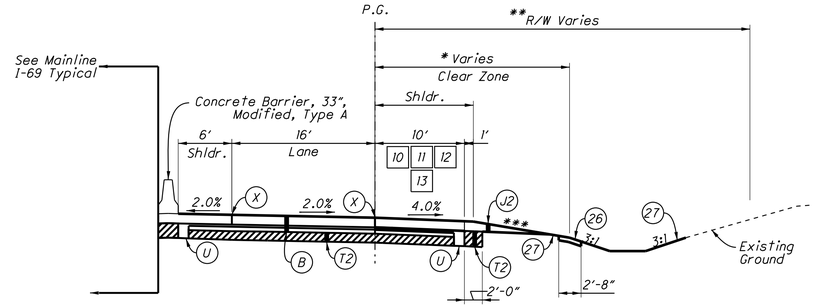
Typical Superelevated Section - Ramp "SEL-3"

Sta. 538+32.70 To Sta. 539+12.00 "SEL-3"



Typical Superelevated Section with Wall - Ramp "SEL-3"

Sta. 529+67.00 to Sta. 533+48.00 Line "SEL-3"



Typical Section - Ramp "SEL-3"

Sta. 539+12.00 to Sta. 542+40.00 Line "SEL-3"

6 9.7' Shoulder Applies
Sta. 526+42.34 To Sta. 526+90.00 "SEL-3"

7 Guardrail with 10' Shoulder Applies
Sta. 526+90.00 To Sta. 527+66.74 "SEL-3"

8 Varies 8' To 11'
Sta. 528+98.57 To Sta. 529+65.00 "SEL-3"

9 Varies 11' To 10.6'
Sta. 538+32.70 To Sta. 539+12.00 "SEL-3"

10 Varies 10.6' To 10'
Sta. 539+12.00 To Sta. 540+01.49 "SEL-3"

11 Guardrail Applies
Varies 10' To 9.7'
Sta. 541+45.02 To Sta. 541+70.09 "SEL-3"

12 Guardrail With 9.7' Applies
Sta. 540+46.79 To Sta. 541+90.92 "SEL-3"

13 Bridge Rail, FC Applies
Sta. 541+90.92 To Sta. 542+40.00 "SEL-3"

* See Clear Zone Table On The Typical Detail Sheet TY-07 For Actual Lengths (Sheet 13)
** See Cross Sections For Specific Dimensions
*** Grade Varies (6:1 Max), See Cross Sections For Specific Grade & Locations

(B) OC/OA, 8.5" on Subbase For PCCP
(D-1 Joints @ 18' O.C. w/ 1" Dia. Dowel Bars)
OR
165 lb/Sys OC/OA-HMA, 2, 70, Surface 9.5 mm, on
275 lb/Sys OC/OA-HMA, 2, 70, Intermediate 19.0 mm, on
330 lb/Sys OC/OA-HMA, 2, 64, Base 19.0 mm, on
250 lb/Sys OC/OA-HMA, 5, 76, Intermediate OG19.0 mm, on
330 lb/Sys OC/OA-HMA, 2, 64, Base 19.0 mm

(C) Concrete, C, Railing
(J2) Compacted Aggregate, No. 53, Variable Depth
(M) 8.5" Concrete Moment Slab
(T2) Subgrade Treatment, Type IIA
(U) 6" Underdrain Pipe
(W) MSE Wall
(X) Construction Joint
(26) Sodding
(27) Seeding, R

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS RAMP "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'	
VERTICAL SCALE	DESIGNATION
	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-05	11 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

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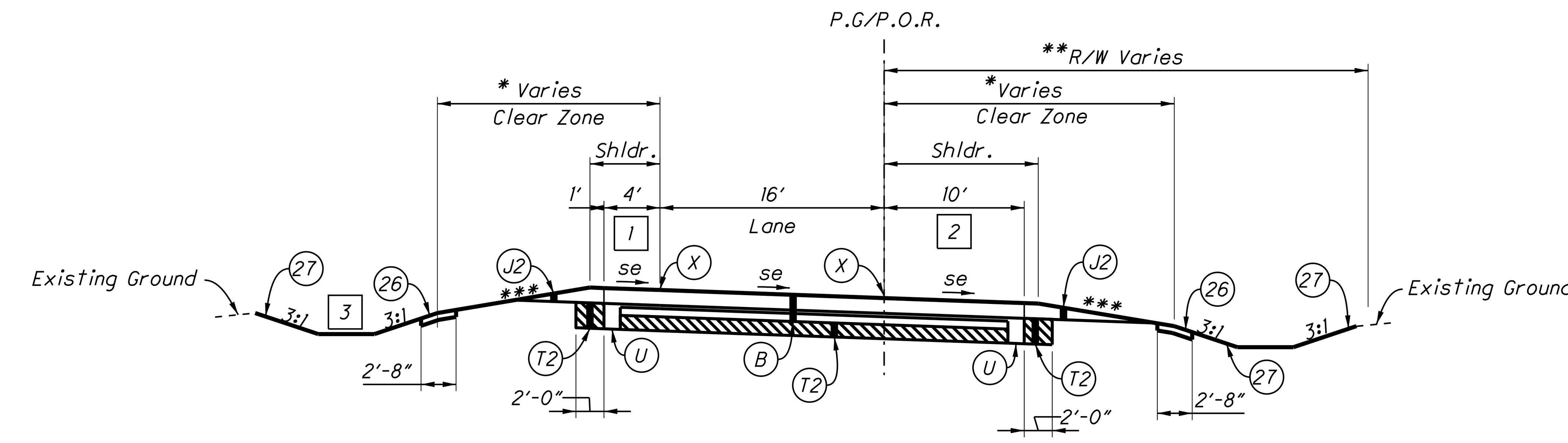
1 9/25/12 - Revised Typicals

* See Mainline Typical Section

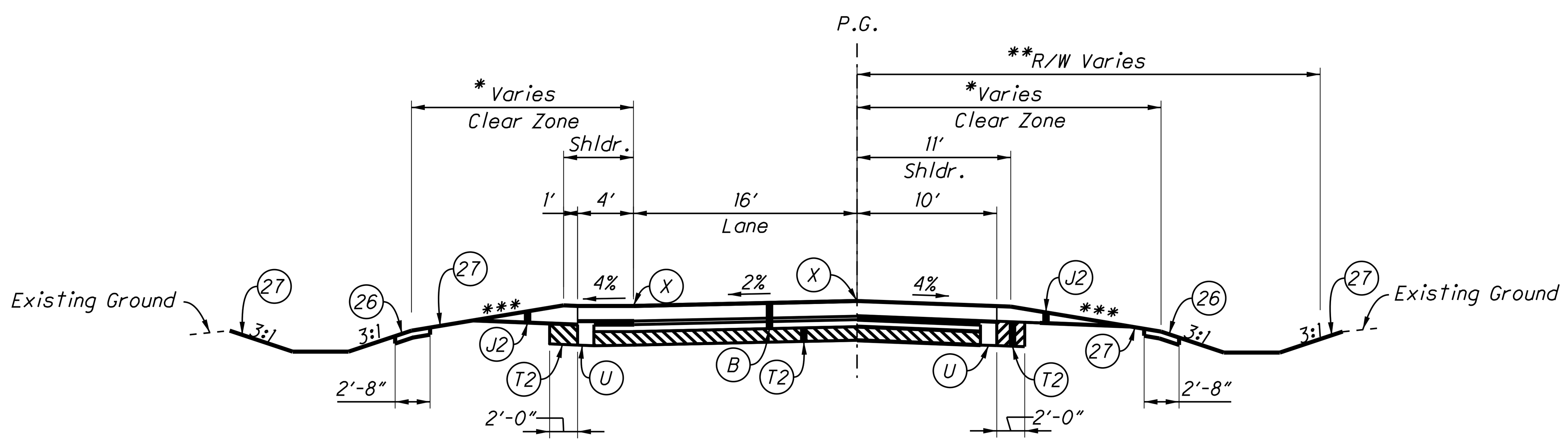
Typical Section - Ramp "SER-3"

Sta. 1511+52.65 to Sta. 1515+20.69 Line "SER-3"



Typical Superelevated Section - Ramp "SER-3"

Sta. 1515+85.00 to Sta. 1525+87.90 Line "SER-3"



Typical Section - Ramp "SER-3"

Sta. 1515+20.69 to Sta. 1515+85.00 Line "SER-3"

* See "NWR-3" Typical Section

Typical Superelevated Section - Ramp "SER-3"

Sta. 1525+88.00 to Sta. 1527+31.33 Line "SER-3"

1 Guardrail With 6' Shoulder Apples
Sta. 1516+00.00 To 1520+00.00 "SER-3"

2 Varies 10' To 8'
Sta. 1516+69.44 To Sta. 1517+20.02 Line "SER-3"

3 6:1 Special V-Ditch Applies
Sta. 1522+47.00 To Sta. 1525+90.00 Line "SER-3"

* See Clear Zone Table On The Typical Detail Sheet TY-07 For Actual Lengths (Sheet 13)
** See Cross Sections For Specific Dimensions
*** Grade Varies (6:1 Max), See Cross Sections For Specific Grade & Locations

(B) QC/QA, 8.5" on
Subbase For PCCP
(D-1 Joints @ 16' O.C. w/ 1" Dia. Dowel Bars)
OR
165 lb/Sys QC/QA-HMA, 2, 70, Surface 9.5 mm, on
275 lb/Sys QC/QA-HMA, 2, 70, Intermediate 19.0 mm, on
330 lb/Sys QC/QA-HMA, 2, 64, Base 19.0 mm, on
250 lb/Sys QC/QA-HMA, 5, 76, Intermediate OG19.0 mm, on
330 lb/Sys QC/QA-HMA, 2, 64, Base 19.0 mm

(J2) Compacted Aggregate, No. 53, Variable Depth
(T2) Subgrade Treatment, Type IIA
(U) 6" Underdrain Pipe
(X) Construction Joint

(26) Sodding
(27) Seeding, R

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED:	JB	DRAWN:	ETD
CHECKED:	RT	CHECKED:	WJW

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS RAMPS "SER-3"

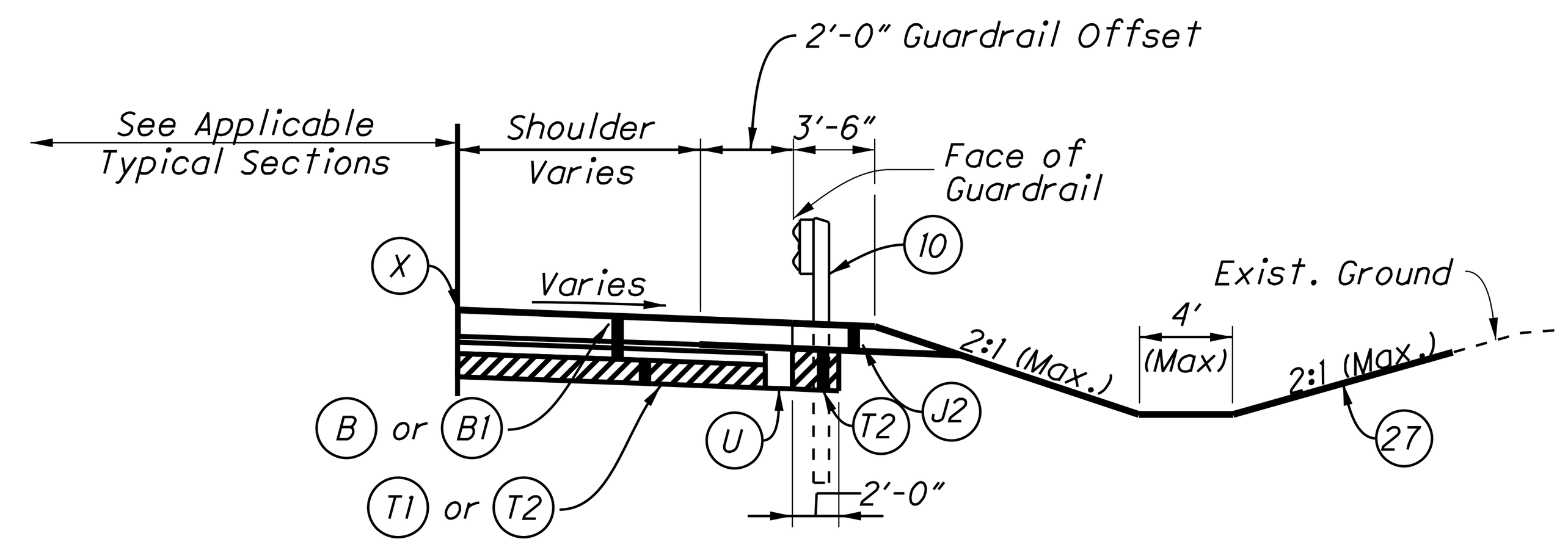
HORIZONTAL SCALE	BRIDGE FILE	
1/8" = 1'		
VERTICAL SCALE	DESIGNATION	
	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-06	12 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\3_Typicals\25627500TY06-S9_SER.dgn

1 9/25/12 - Revised Typicals

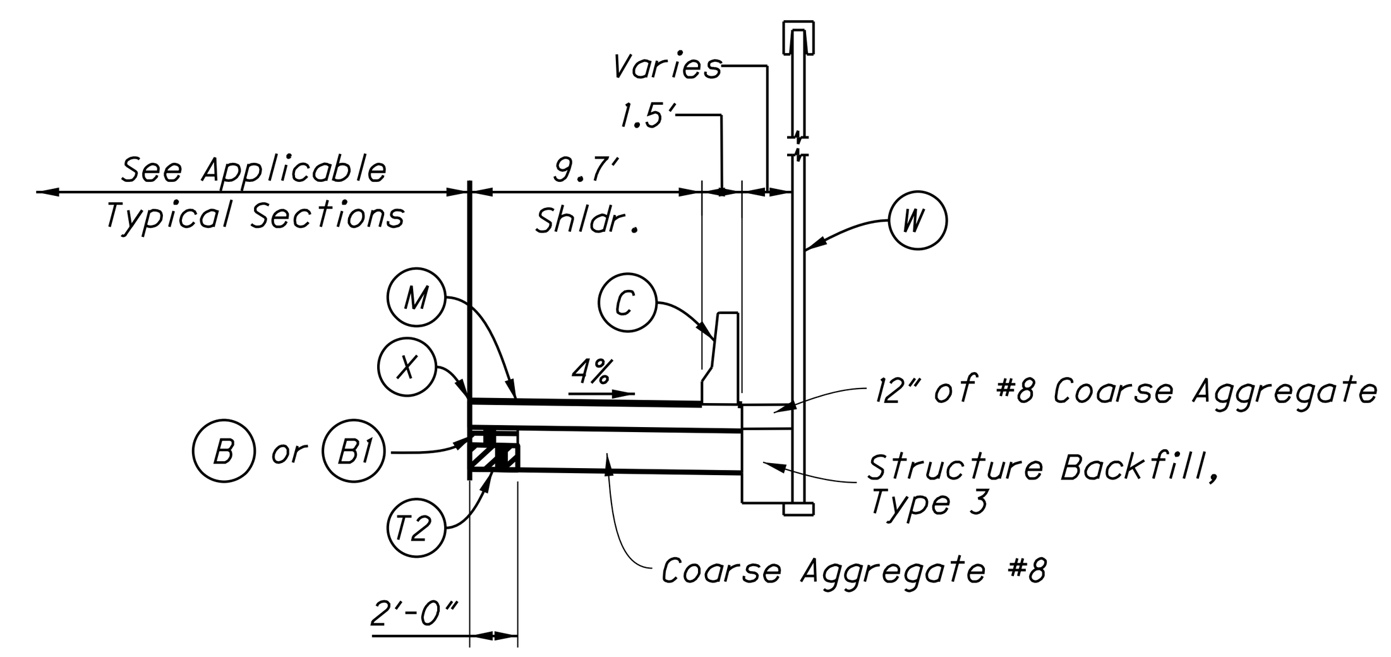
Ramp	Station		Design Speed (mph)	Clear Zone (ft)	
	From	To		Lt	Rt
NER-3					
	500+00.00	506+89.00	45	20	20
	506+89.00	514+86.00	45	20	24
	514+86.00	515+56.00	45	20	20
	515+56.00	530+92.08	45	24	20
NWR-3					
	1550+40.68	1559+32.00	50	26	20
	1559+32.00	1560+00.00	45	20	20
	1560+00.00	1574+05.83	45	20	25
	1576+14.15	1579+88.74	45	20	25
	1579+88.74	1593+09.00	45	24	20
	1593+09.00	1598+85.14	50	20	20
SEL-3					
	513+90.65	517+72.00	45	12	15
	517+72.00	524+18.31	45	12	12
	526+42.34	526+90.00	45	12	12
	526+90.00	539+12.00	30	11	10
	539+12.00	542+40.00	60	20	20
SER-3					
	1515+21.34	1515+85.00	50	12	12
	1515+85.00	1525+87.90	35	12	10

Clear Zone Table



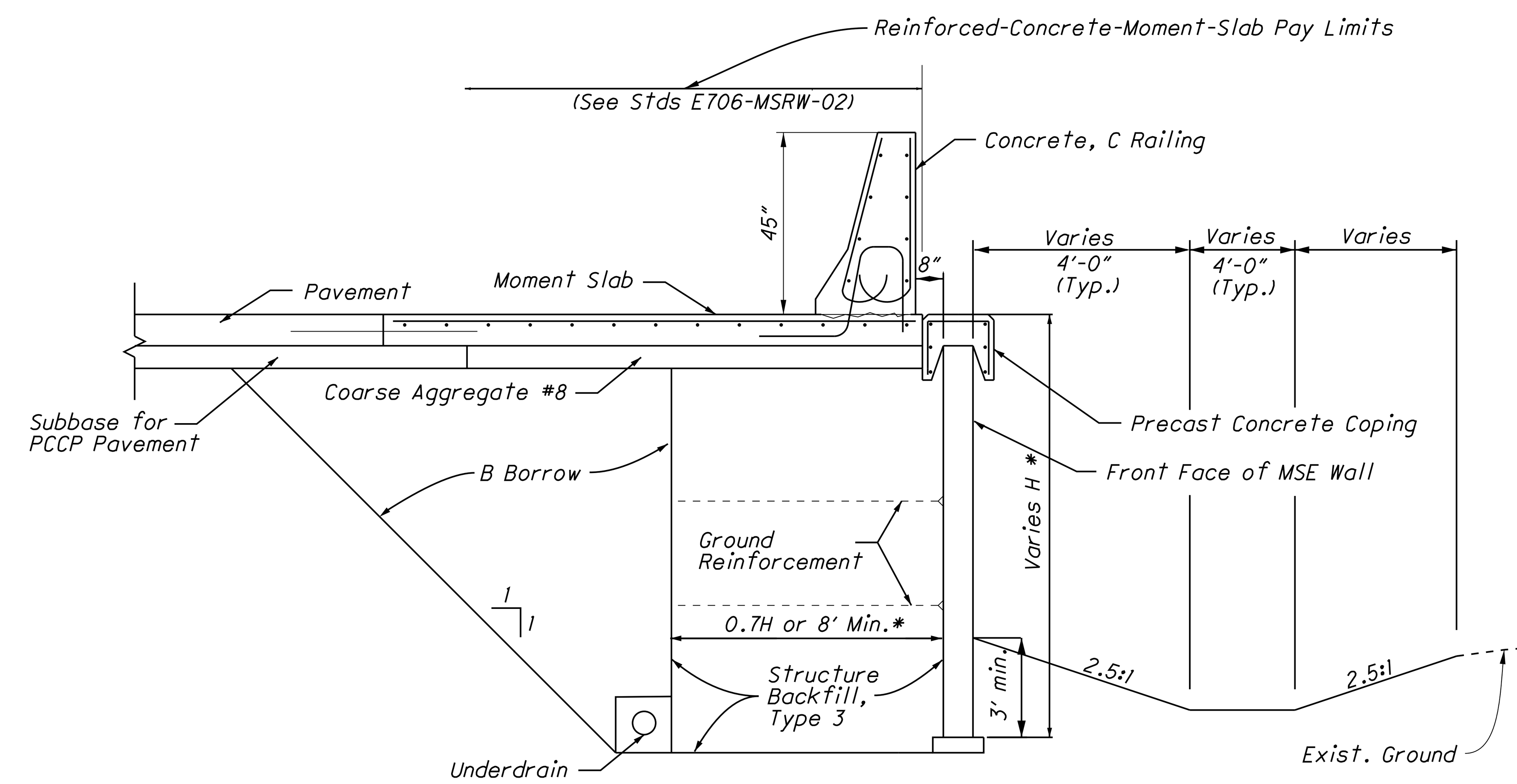
Ramp Shoulder w/Guardrail Detail

Not to Scale



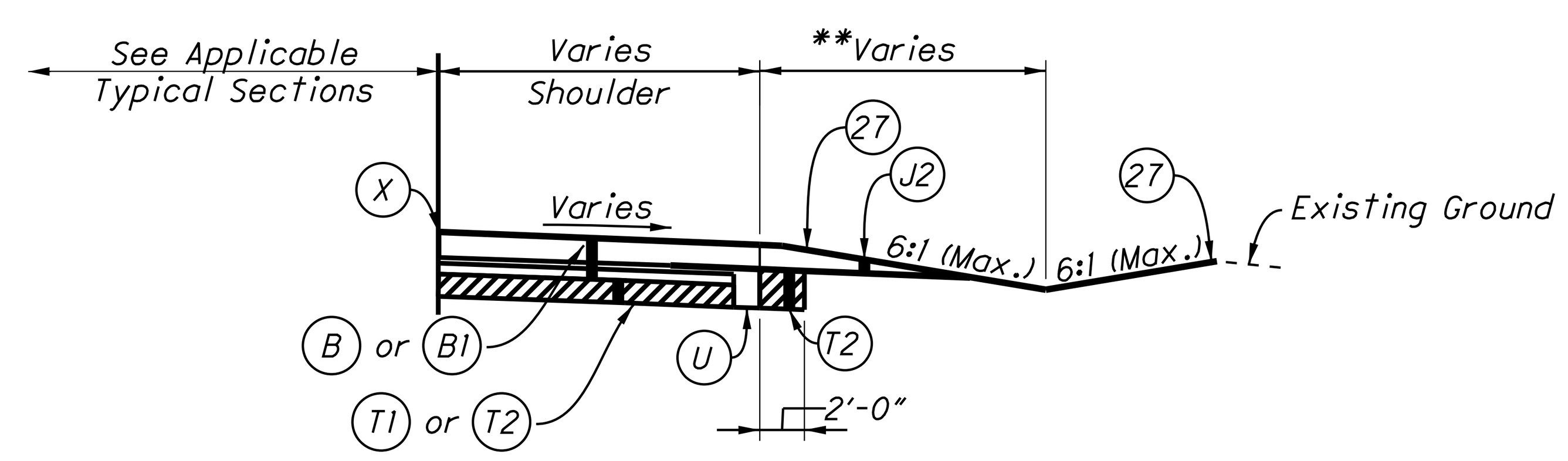
Typical Section - Ramp Shoulder with Bridge Rail Detail

Not to Scale



Typical Section - Moment Slab Detail

Not to Scale



6:1 Special V-Ditch Detail

Not to Scale

** See Cross Sections For Specific Dimensions
*** Grade Varies (6:1 Max), See Cross Sections For Specific Grade & Locations

(B) QC/QA, 10.5" on
Subbase For PCCP
(D-1 Joints @ 16' O.C. w/ 1.5" Dia. Dowel Bars)
OR
165 lb/Sys QC/QA-HMA, 4, 76, Surface 9.5 mm, on
275 lb/Sys QC/QA-HMA, 4, 76, Intermediate 19.0 mm, on
330 lb/Sys QC/QA-HMA, 4, 64, Base 19.0 mm, on
250 lb/Sys QC/QA-HMA, 5, 76, Intermediate OG19.0 mm, on
330 lb/Sys QC/QA-HMA, 4, 64, Base 19.0 mm

(B1) QC/QA, 8.5" on
Subbase For PCCP
(D-1 Joints @ 16' O.C. w/ 1" Dia. Dowel Bars)
OR
165 lb/Sys QC/QA-HMA, 2, 70, Surface 9.5 mm, on
275 lb/Sys QC/QA-HMA, 2, 70, Intermediate 19.0 mm, on
330 lb/Sys QC/QA-HMA, 2, 64, Base 19.0 mm, on
250 lb/Sys QC/QA-HMA, 5, 76, Intermediate OG19.0 mm, on
330 lb/Sys QC/QA-HMA, 2, 64, Base 19.0 mm

(C) Concrete, C, Railing
(J2) Compacted Aggregate, No. 53, Variable Depth
(M) 8.5" Concrete Moment Slab
(T1) Subgrade Treatment, Type IA
(T2) Subgrade Treatment, Type IIA
(U) 6" Underdrain Pipe
(W) MSE Wall
(X) Construction Joint
(10) W-Beam Guardrail
(27) Seeding, R

William James Williams
REGISTERED
No.10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 — DATE

DESIGNED:	JB	DRAWN:	ETD
CHECKED:	RT	CHECKED:	WJW

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS DETAIL SHEET

HORIZONTAL SCALE	BRIDGE FILE	
1/8" = 1'		
VERTICAL SCALE	DESIGNATION	
	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-07	13 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 9/25/12 - Revised Typicals

DATE: 10/2/2012
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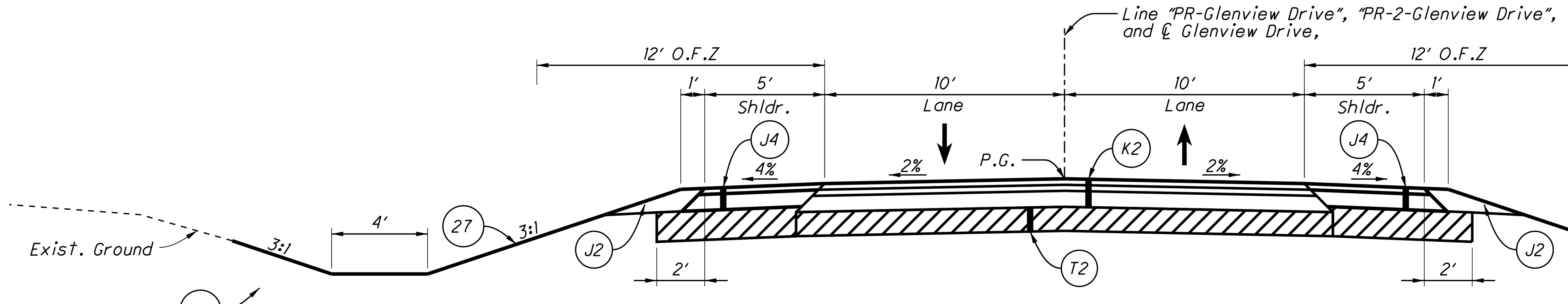
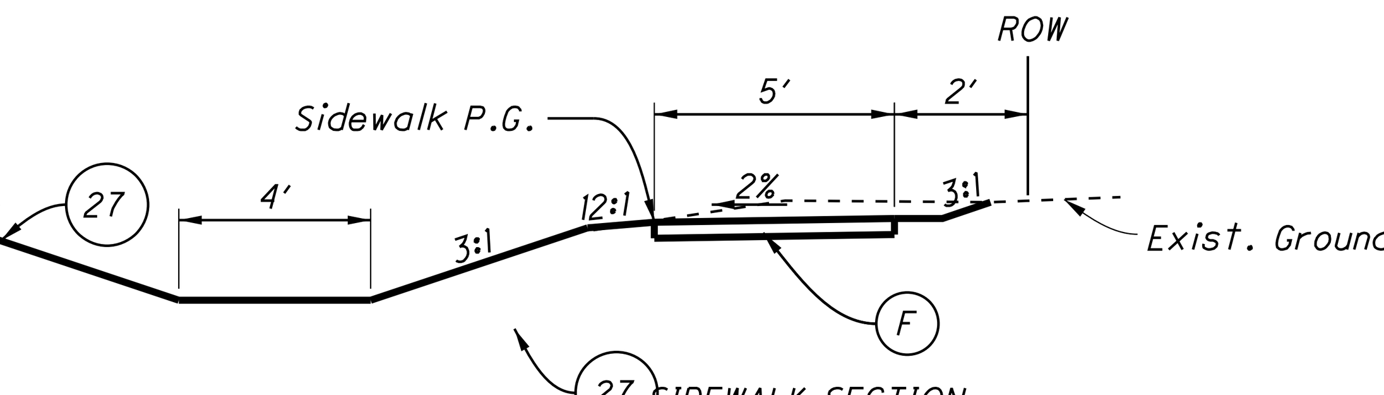


Typical Section - Glenview Drive

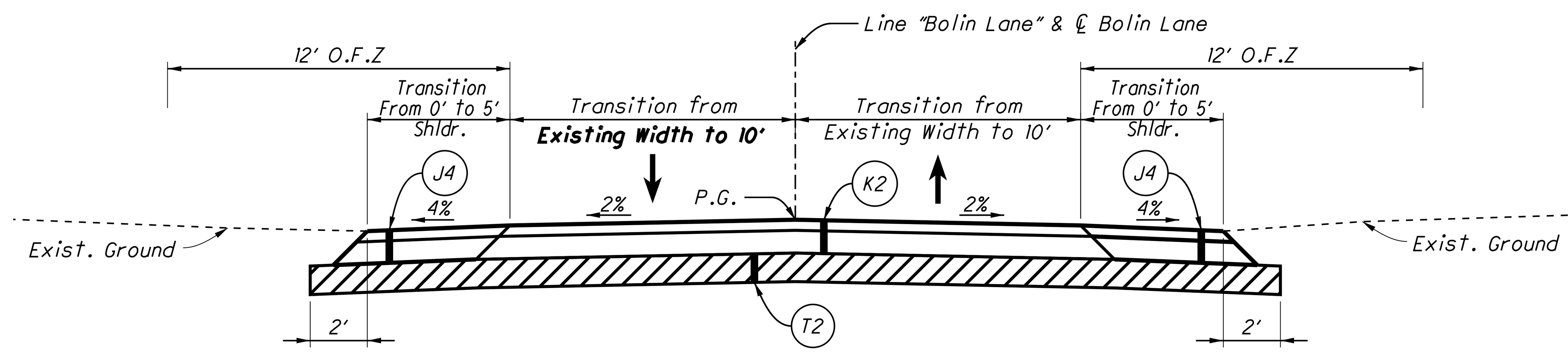
Scale: 1/4" = 1'-0"

Sta. 2+00.00 to Sta. 6+31.15 (BK) "PR-2-GLENVIEW DRIVE"
Sta. 6+26.45 (AH) "PR-GLENVIEW DRIVE" to Sta. 13+49.59 "PR-GLENVIEW DRIVE"



SIDEWALK SECTION
Sta. 5+65.00 "PR-2-Glenview Drive" to Sta. 13+85.00 "PR-Glenview Drive"

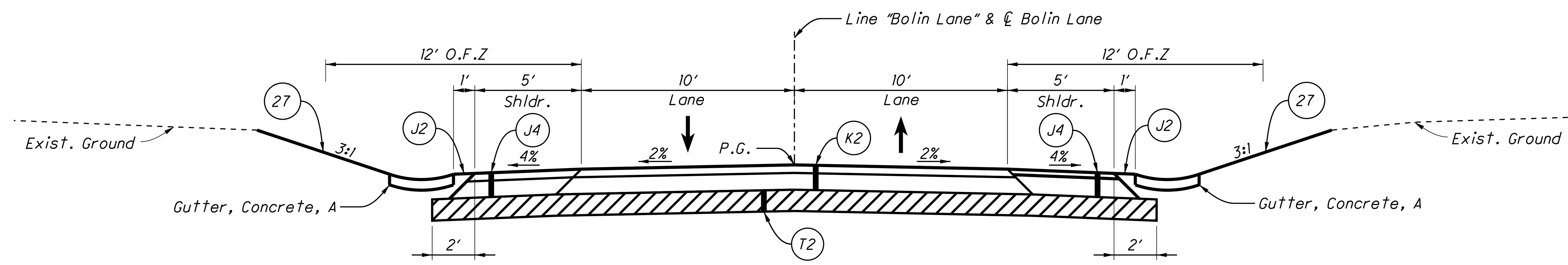
Station Equation
POT Sta. 6+31.15 "PR-2-Glenview Drive" (BK) =
PT Sta. 6+26.45 "PR-Glenview Drive" (AH)



Typical Section - Bolin Lane

Scale: 1/4" = 1'-0"

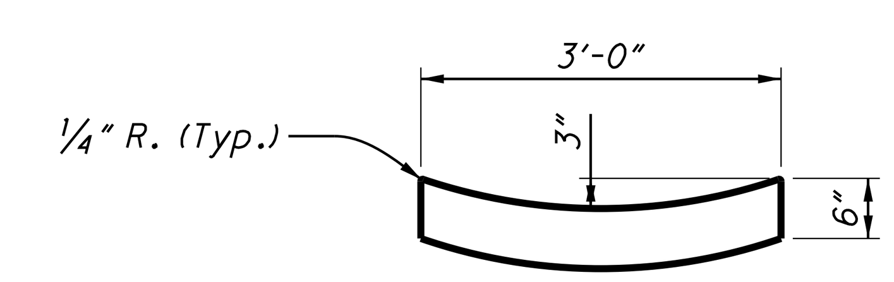
Sta. 17+30.00 to Sta. 18+00.00 "Bolin Lane"
Sta. 22+00.00 to Sta. 22+25.00 "Bolin Lane"



Typical Section - Bolin Lane

Scale: 1/4" = 1'-0"

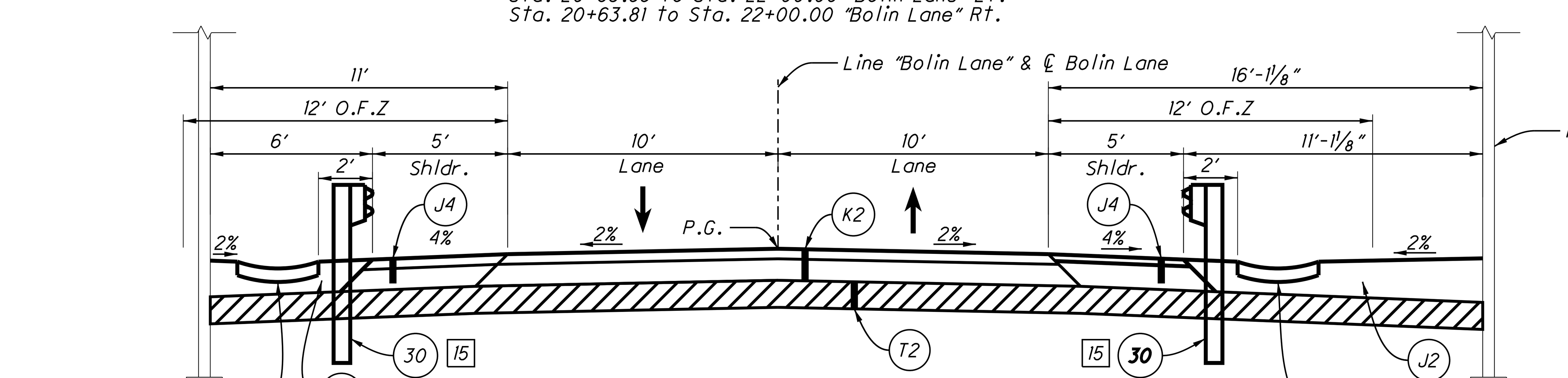
Sta. 18+00.00 to Sta. 19+31.15 "Bolin Lane" Lt.
Sta. 18+00.00 to Sta. 19+00.85 "Bolin Lane" Rt.
Sta. 20+93.88 to Sta. 22+00.00 "Bolin Lane" Lt.
Sta. 20+63.81 to Sta. 22+00.00 "Bolin Lane" Rt.



GUTTER, CONCRETE, A DETAIL

Scale: N.T.S.

Sta. 18+00.00 to Sta. 22+25.00 "Bolin Lane" Lt.
Sta. 18+00.00 to Sta. 20+60.95 "Bolin Lane" Rt.



Typical Section - Bolin Lane Through Bridge

Scale: 1/4" = 1'-0"

Sta. 19+31.15 to Sta. 20+93.88 "Bolin Lane" Lt.
Sta. 19+00.85 to Sta. 20+63.81 "Bolin Lane" Rt.

(K2) 165 lbs/Sys HMA, Surface, Type "B" on 275 lbs/Sys HMA, Intermediate, Type "B" on 6" Compacted Aggregate, No. 53, Base

(J4) 165 lbs/Sys HMA, Surface, Type "B" on 275 lbs/Sys HMA, Intermediate, Type "B" on 6" Compacted Aggregate, No. 53, Base

(J2) Compacted Aggregate, No. 53, Variable Depth

(T2) Subgrade Treatment, Type IIA

(27) Seeding, R

(30) Guardrail, W-Beam, 6'-3" Spa.

(F) Concrete Sidewalk (4")

[15] Guardrail from Sta. 19+30.00 to Sta. 21+95.00 "Bolin Lane" Lt.
Guardrail from Sta. 18+01.50 to Sta. 20+64.00 "Bolin Lane" Rt.

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KEH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS
BOLIN LANE & GLENVIEW DRIVE

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-04	14 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 1:13:04 PM
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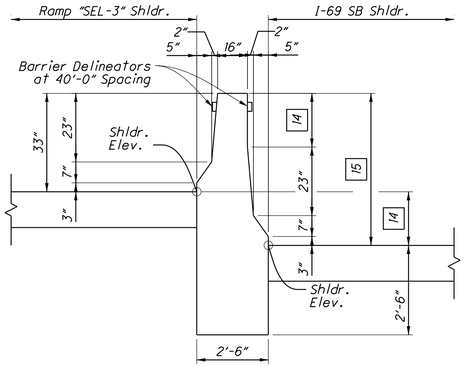
⚠ 09/25/12 - Miscellaneous revisions



Concrete Barrier, 33", Modified, Type A1

Not to Scale

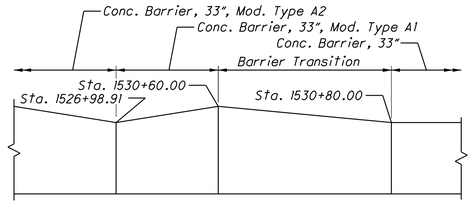
Sta. 1526+98.91 to Sta. 1530+60.00 "PR-A" Lt.

14 Varies from 0" at 1526+98.91 to 9½" at 1530+60.00

15 Varies from 33" at 1526+98.91 to 42½" at 1530+60.00

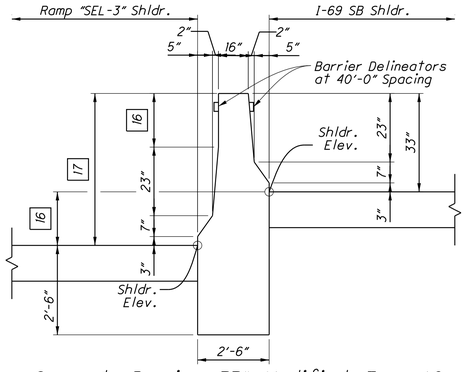
16 Varies from 1½" at 1526+34.92 to 0" at 1526+98.91

17 Varies from 34½" at 1526+34.92 to 33" at 1526+98.91



Barrier Transition
Type A2 to Type A1 to Standard Elevation

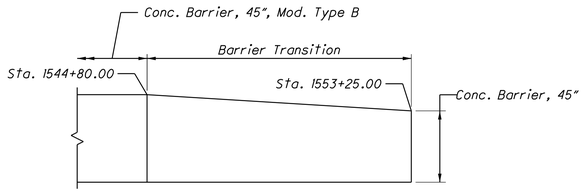
Not to Scale



Concrete Barrier, 33", Modified, Type A2

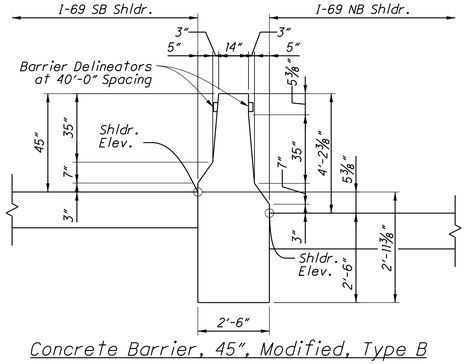
Not to Scale

Sta. 1526+34.92 to Sta. 1526+98.91 "PR-A" Lt.



Barrier Transition - Type B to Standard - Elevation

Not to Scale



Concrete Barrier, 45", Modified, Type B

Not to Scale

Sta. 1522+94.34 to Sta. 1544+80.00 "PR-A"

(A) PCCP or HMA - Rural Section
(See Applicable Typical Section for Details)

(A1) PCCP or HMA - Urban Section
(See Applicable Typical Section for Details)

(J) 165 lbs/Sys OC/OA-HMA, I, 64, Surface 9.5 mm, on 330 lbs/Sys OC/OA-HMA, I, 64, Intermediate 19.0 mm, on 6" Compacted Aggregate, No. 53, Base

(J1) 165 lbs/Sys OC/OA-HMA, I, 64, Surface 9.5 mm, on 495 lbs/Sys OC/OA-HMA, I, 64, Base 25.0 mm, on 7" Compacted Aggregate, No. 53, Base

(J2) Compacted Aggregate, No. 53, Variable Depth

(J3) 165 lbs/Sys OC/OA-HMA, I, 64, Surface 9.5 mm, on 330 lbs/Sys OC/OA-HMA, I, 64, Intermediate 19.0 mm, on 660 lbs/Sys HMA, Base, Type "D"

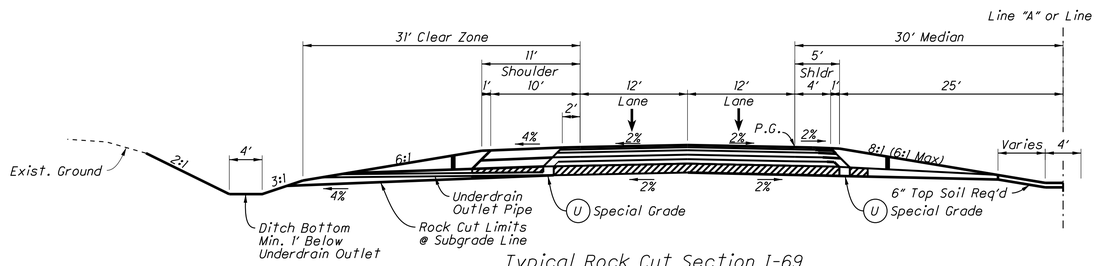
(T1) Subgrade Treatment
Type IA: Shall Be Used In Embankment And Natural Soil Or Non-Durable Rock Cut Areas
Type IC: Shall Be Used In Rock Cut Areas
(See Geotechnical Report For Approximate Locations)

(U) 6" Underdrain Pipe

(Y) Longitudinal Joint

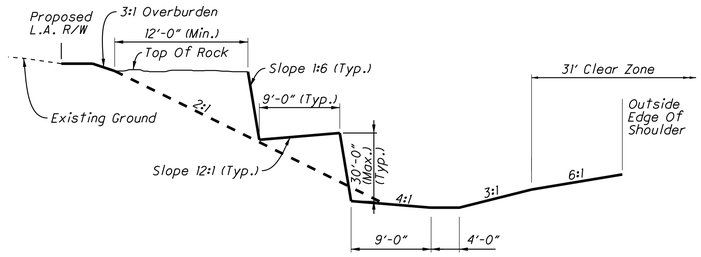
(26) Sodding

(27) Seeding, R



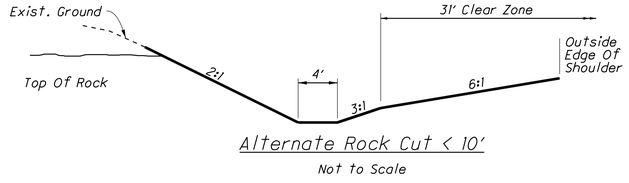
Typical Rock Cut Section I-69

(Optional Rock Cut < 10' with HMA Option Shown)
(Optional Rock Cut > 10' Similar)
Scale: ⅛" = 1'-0"



Alternate Rock Cut > 10'

Not to Scale



Alternate Rock Cut < 10'

Not to Scale

** For Paved Shoulder Width Greater Than 4':
The Shoulder Slope Shall Be 4% If The Pavement Is At Normal Slope Of 2% Or If The Superelevation Rate Is 4% Or Less.
The Shoulder Slope Shall Be 2% Down From The Traveled Way If The Superelevation Rate Is Greater Than 4% But Less Than Or Equal To 6%.
The Shoulder Slope Shall Be 1% Up From The Traveled Way If The Superelevation Rate Is Greater Than 6%.

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

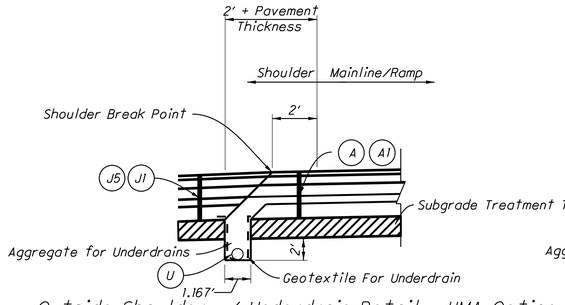
TYPICAL SECTIONS MISCELLANEOUS DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-05	15 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:05 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275080RD_TY05.dgn

⚠1 09/25/12 - Remove details

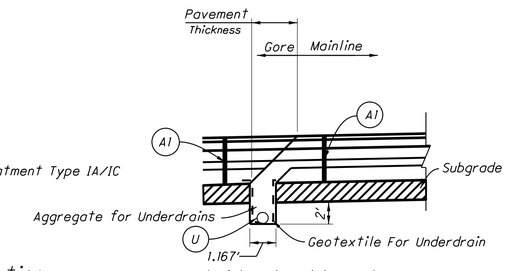


Outside Shoulder w/ Underdrain Detail - HMA Option

Not to Scale

(A) (J1) HMA - Rural Section
(See Applicable Typical Section for Details)

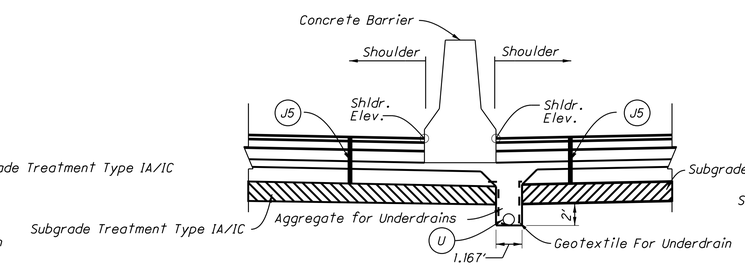
(A1) (J5) HMA - Urban Section
(See Applicable Typical Section for Details)



Outside Shoulder at Gore w/ Underdrain Detail - HMA Option

Not to Scale

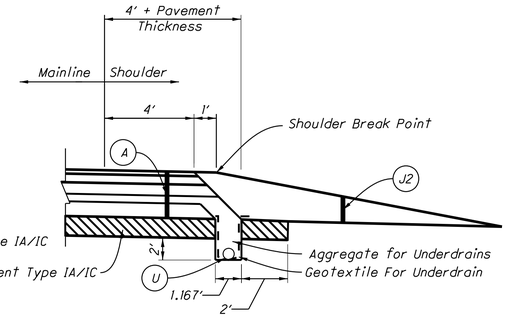
(A1) HMA - Urban Section
(See Applicable Typical Section for Details)



Inside Shoulder at Concrete Barrier w/ Underdrain Detail - HMA Option

Not to Scale

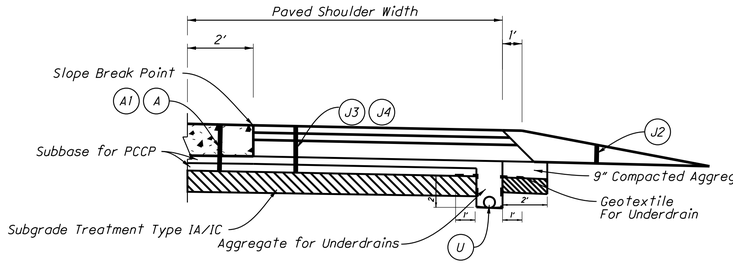
(J5) HMA - Urban Section
(See Applicable Typical Section for Details)



Inside Shoulder w/ Underdrain Detail - HMA Option

Not to Scale

(A) (J2) HMA - Rural Section
(See Applicable Typical Section for Details)

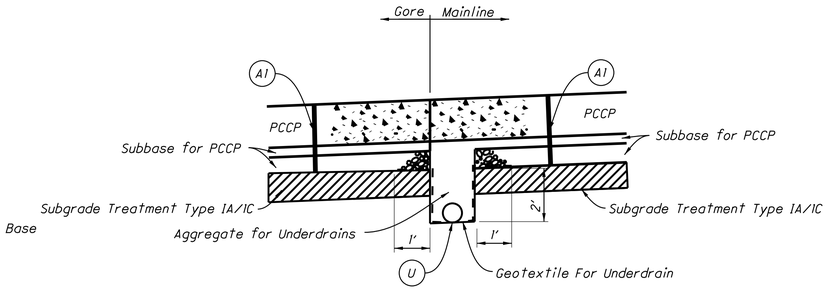


Outside Shoulder w/ Underdrain Detail - PCCP Option

Not to Scale

(A) (J3) Rural Section
(See Applicable Typical Section for Details)

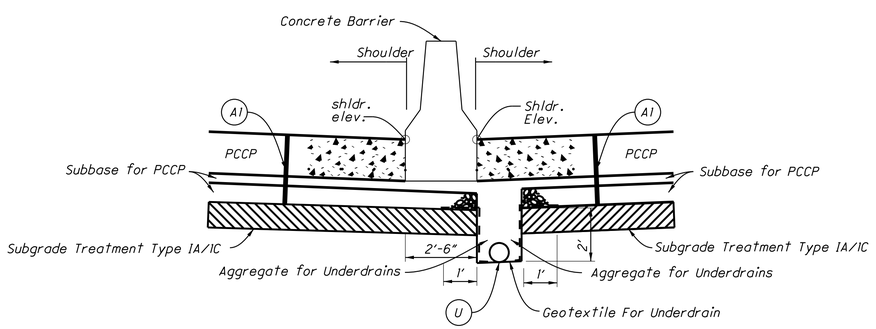
(A1) (J4) Urban Section
(See Applicable Typical Section for Details)



Outside Shoulder at Gore w/ Underdrain Detail - PCCP Option

Not to Scale

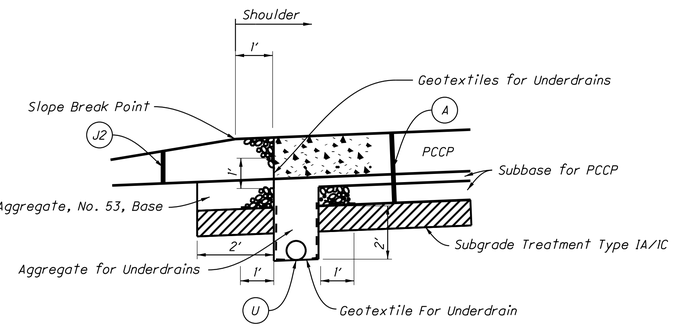
(A1) PCCP - Urban Section
(See Applicable Typical Section for Details)



Inside Shoulder at Concrete Barrier w/ Underdrain Detail - PCCP Option

Not to Scale

(A1) PCCP - Urban Section
(See Applicable Typical Section for Details)



Inside Shoulder w/ Underdrain Detail - PCCP Option

Not to Scale

(A) (J2) PCCP - Rural Section
(See Applicable Typical Section for Details)

(U) 6" Underdrain Pipe

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

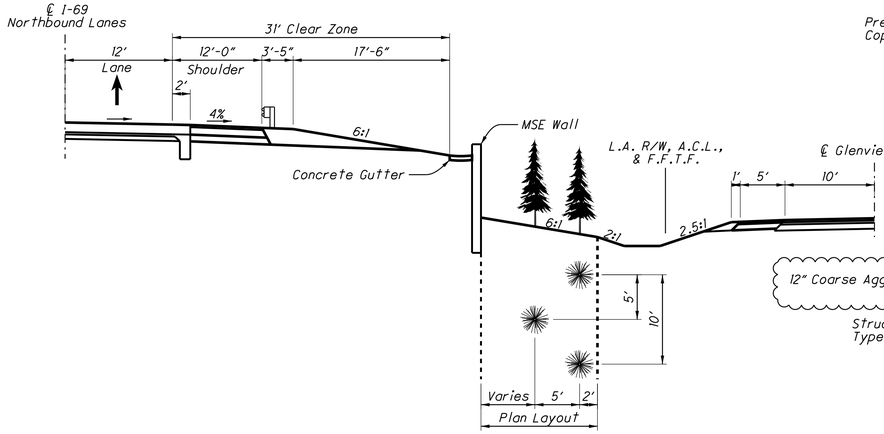
TYPICAL SECTIONS UNDERDRAIN DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-11	15-1 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

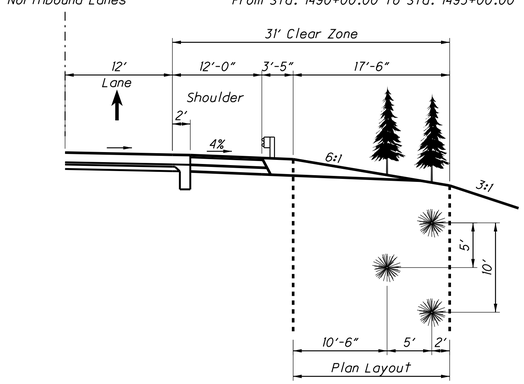
DATE: 10/1/2012
TIME: 10:41:06 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275000RD_TY11.dgn

1 09/25/12 - New sheet, revised details



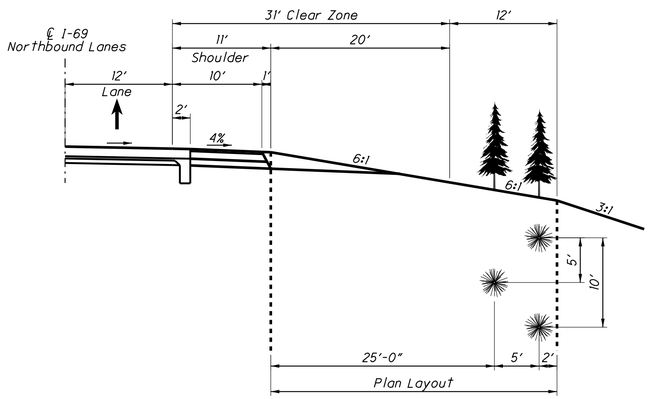
Typical Tree Screen Section with MSE Wall

Scale: 1/8" = 1'-0"
From Sta. 1490+00.00 to Sta. 1493+00.00



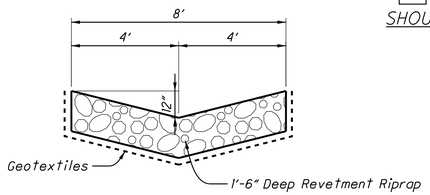
Typical Tree Screen Section with Guardrail

Scale: 1/8" = 1'-0"
From Sta. 1476+00.00 to Sta. 1490+00.00



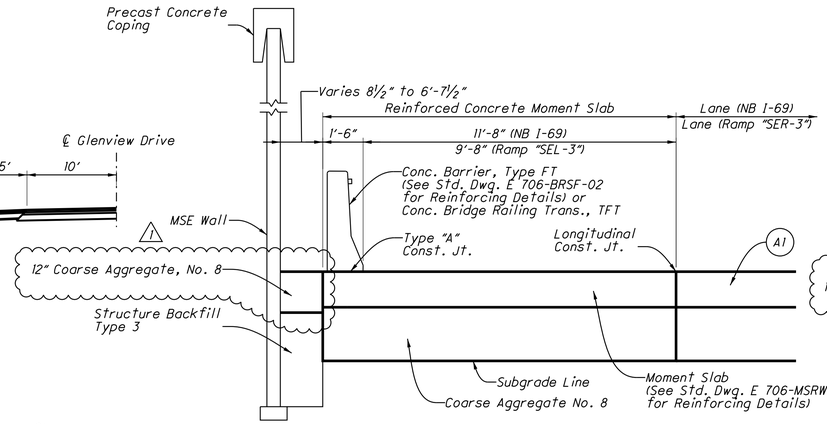
Typical Tree Screen Section

Scale: 1/8" = 1'-0"
From Sta. 1474+00.00 to Sta. 1476+00.00



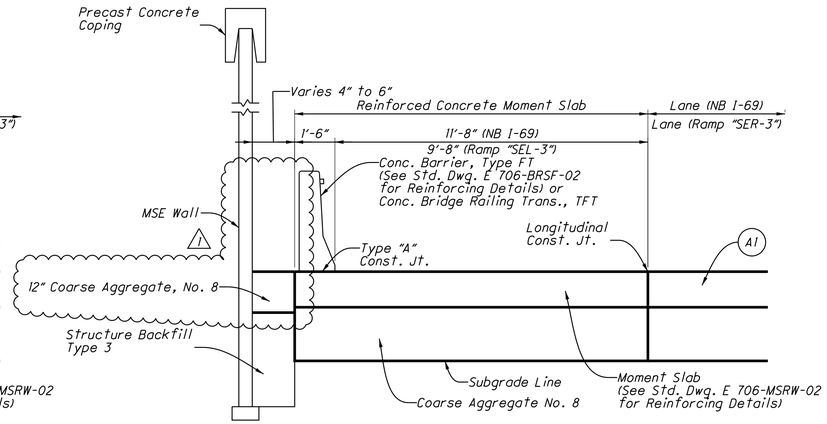
RIPRAP TURNOUT SECTION

Not to Scale



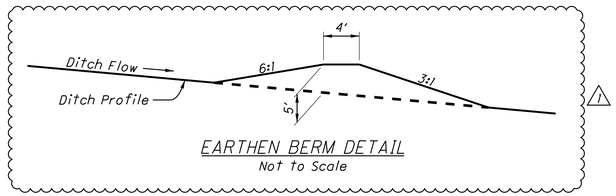
SHOULDER ADJACENT TO MSE WALL DETAIL - STR. NO. 7

Not to Scale
(Ramp "SEL-3" Shown)
(Northbound I-69 Reversed)
Sta. 1522+22.07 to Sta. 1522+82.45 "PR-A", NB
Sta. 545+33.77 to Sta. 545+98.08 "SEL-3"



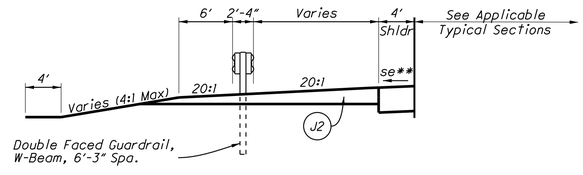
SHOULDER ADJACENT TO MSE WALL DETAIL - STR. NO. 6

Not to Scale
(Ramp "SEL-3" Shown)
(Northbound I-69 Reversed)
Sta. 1525+48.86 to Sta. 1526+07.47 "PR-A", NB
Sta. 541+90.92 to Sta. 542+49.05 "SEL-3"



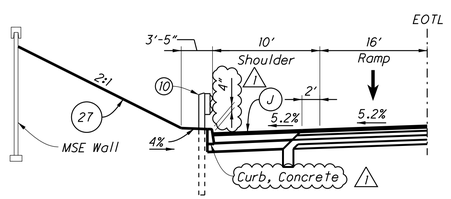
EARTHEN BERM DETAIL

Not to Scale



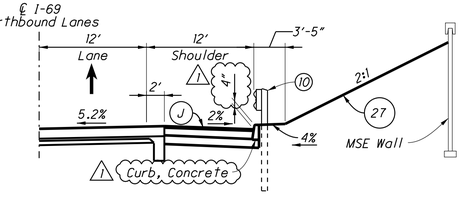
I-69 MEDIAN SHOULDER WITH GUARDRAIL

Not to Scale
(See Guardrail Table for Locations)



Southbound Lanes

HMA Pavement Option
Sta. 541+56.19 to Sta. 541+90.92 Line "SEL-3"
Sta. 544+76.84 to Sta. 545+33.77 Line "SEL-3"

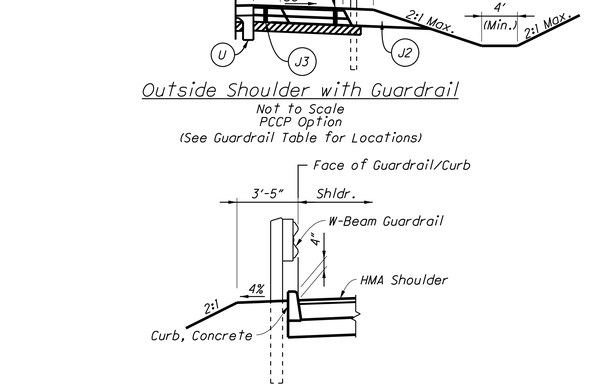


Northbound Lanes

PCCP Pavement Option
Sta. 1521+69.41 to Sta. 1522+22.07 Line "PR-A"
Sta. 1522+82.45 to Sta. 1523+43.34 Line "PR-A"
Sta. 1524+98.01 to Sta. 1525+48.86 Line "PR-A"

I-69 Special Fill Section

Not to Scale



Outside Shoulder with Guardrail

Not to Scale
PCCP Option
(See Guardrail Table for Locations)

Curb Detail - Outside Shoulder

Not to Scale
From Sta. 1467+83 to Sta. 1468+71 "A", NB
From Sta. 1468+16 to Sta. 1468+71 "A", SB

A1 OC/OA, 10.5" on Subbase For PCCP (D-1 Joints @ 15' O.C. w/1.5" Dia. Dowel Bars) or 165 lbs/Sys OC/OA-HMA, 4, 76, Surface, 9.5 mm on 275 lbs/Sys OC/OA-HMA, 4, 76, Intermediate, 19.0 mm on 330 lbs/Sys OC/OA-HMA, 4, 64, Base, 19.0 mm on 250 lbs/Sys OC/OA-HMA, 5, 76, Intermediate, OG 19.0 mm on 385 lbs/Sys OC/OA-HMA, 4, 64, Base, 19.0 mm

J 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on 330 lbs/Sys OC/OA-HMA, 1, 64, Intermediate 19.0 mm, on 6" Compacted Aggregate, No. 53, Base

J1 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on 495 lbs/Sys OC/OA-HMA, 1, 64, Base 25.0 mm, on 7" Compacted Aggregate, No. 53, Base

J2 Compacted Aggregate, No. 53, Variable Depth

J3 165 lbs/Sys OC/OA-HMA, 1, 64, Surface 9.5 mm, on 330 lbs/Sys OC/OA-HMA, 1, 64, Intermediate 19.0 mm, on 660 lbs/Sys HMA, Base, Type "D"

T1 Subgrade Treatment
Type IA: Shall Be Used In Embankment And Natural Soil Or Non-Durable Rock Cut Areas
Type IC: Shall Be Used In Rock Cut Areas
(See Geotechnical Report For Approximate Locations)

U 6" Underdrain Pipe

Y Longitudinal Joint

10 Guardrail, W-Beam, 6'-3" Spa.

26 Sodding

27 Seeding, R

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KEH
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

TYPICAL SECTIONS MISCELLANEOUS DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	N/A
VERTICAL SCALE	DESIGNATION
AS NOTED	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	TY-07	16 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:4107 AM
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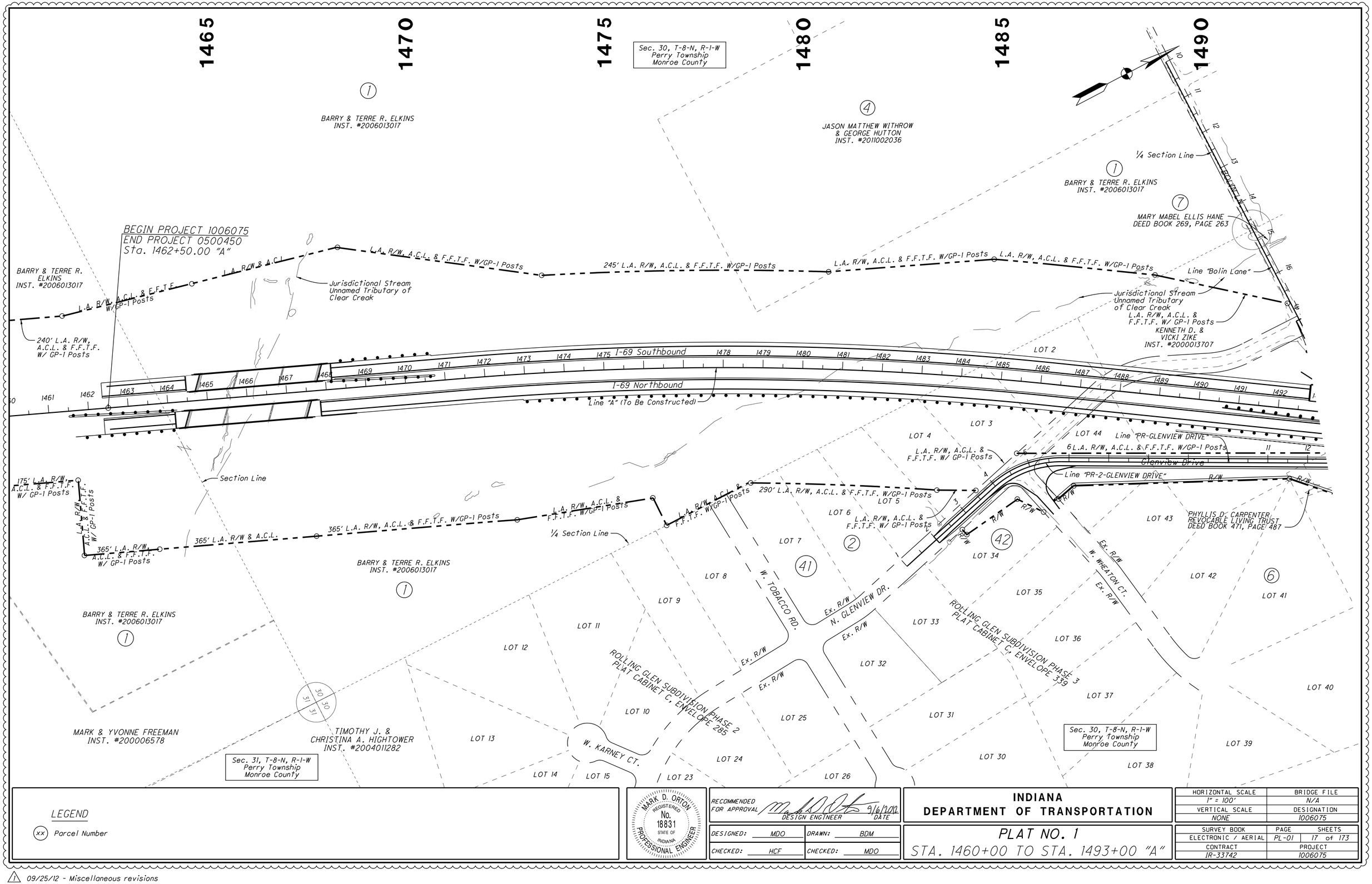
1 09/25/12 - Miscellaneous revisions



LEGEND

(xx) Parcel Number

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: BDM
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PLAT NO. 1
STA. 1460+00 TO STA. 1493+00 "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PL-01	17 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

1495 1500 1505 1510 1515 1520 1525

Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County

FARMERS FIELD SUBDIVISION PHASE 3
PLAT CABINET C, ENVELOPE 295

1/4 Section Line

(7) MARY MABEL ELLIS HANE
DEED BOOK 269, PAGE 265

(7) MARY MABEL ELLIS HANE
DEED BOOK 269, PAGE 263

(21) SHARON ELGAR REVOCABLE TRUST
DEED BOOK 414, PAGE 696

(19) ROBERT & AMY VAN PELT
DEED BOOK 424, PAGE 403

(18) REX & JUDITH A WALTERS
DEED BOOK 427, PAGE 243

(15) HAL K. BOWMAN & ELIZABETH H. BOWMAN
INST. #2002001359

(14) LYNNE RAE BERCH
INST. #2006004937

(5) LOT 1

LOT 2

THRASHER ACRES SUBDIVISION
PLAT CABINET C, ENVELOPE 155

JEFFERY L. DUFF
INST #2005023170

STUART T. HILL &
RITA J. HILL
DEED BOOK 364, PAGE 448

ERIC L. RIDGE &
EVE J. SCHULTES-RIDGE
DEED BOOK 453, PAGE 139

VICTOR HEIGHTS IST ADDITION
BOOK 6, PAGE 25

W. VICTOR HEIGHTS DR.

BOLIN LN.

Jurisdictional Stream
Unnamed Tributary
of Clear Creek

Eq.:
POT Sta. 1493+76.97 "A" =
POT Sta. 19+99.09 "Bolin Lane"

Eq.:
PC Sta. 1494+13.78 "A" (BK)=
POT Sta. 1494+13.78 "PR-A" (AH)

Eq.:
POT Sta. 21+37.00 "Bolin Lane" =
POT Sta. 13+60.88 "PR-G"

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

215' L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

175' L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

320' L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

Line "Bolin Lane"

Line "A"

Line "SEL-3"

Line "SER-3"

Line "PR-A" (To Be Constructed)

Line "PR-SR 37"

Line "NWR-3"

I-69 Southbound

I-69 Northbound

R/W

LEGEND

(xx) Parcel Number

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

STA. 1493+00 "A" TO STA. 1528+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PL-02	18 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County

Sec. 19, T-8-N, R-1-W
Perry Township
Monroe County

Sec. 29, T-8-N, R-1-W
Perry Township
Monroe County

Sec. 19, T-8-N, R-1-W
Perry Township
Monroe County

TERRY L. GUY &
DONNA GUY
DEED BOOK 324,
PAGE 402

LAWRENCE F. & BARBARA J.
DENEWETT REVOCABLE TRUST
INST #2002000440

(8) JEREMY TODD &
SHERRI KAY SHIELD
DEED BOOK 484,
PAGE 50

JEREMY TODD & SHERRI
KAY SHIELD
DEED BOOK 484, PAGE
50

(7) MARY MABEL ELLIS HANE
DEED BOOK 269, PAGE 265

(7) MARY MABEL ELLIS HANE
DEED BOOK 269, PAGE 265

Jurisdictional Stream
Unnamed Tributary
of Clear Creek

(21) SHARON ELGAR REVOCABLE TRUST
DEED BOOK 414, PAGE 696

(21) SHARON ELGAR REVOCABLE TRUST
DEED BOOK 414, PAGE 698

(14) LYNNE RAE BERGH
INST. #2006004997

(18) REX F. & JUDITH A. WALTERS
DEED BOOK 427, PAGE 243

(15) HAL K. BOWMAN &
ELIZABETH H. BOWMAN
INST. #2002001359

REX F. & JUDITH A. WALTERS
DEED BOOK 427, PAGE 244

(19)

(12) STATE R/W

(16) STATE R/W

(20) STATE R/W

(9) STATE R/W

(11) STATE R/W

(10) ROCKPORT INVESTMENT GROUP, LLC
NO DEED FOUND

ROCKPORT INVESTMENT GROUP, LLC
INST. #2002010795

ROCKPORT INVESTMENT GROUP, LLC
DEED BOOK 485, PAGE 38

P&G ASSOCIATES, LLC
INST. #2005019502

(17) JAMES J. JR., & CLAIRE C. SCHAFFER
DEED BOOK 437, PAGE 583

(44) LOT 6

LOT 4

LOT 3

I-69 Southbound

I-69 Northbound

Line "PR-A" (To Be Constructed)

Line "SER-3"

Line "PR-SR 37"

Line "NWR-3"

Line "PR-SR 37" and Line "SR 37" Line "NER-3"

Existing SR 37

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

1/4 Section Line

Ex. R/W

Eq.
Sta. 1166+61.03 "PR-SR 37" =
Sta. 166+61.03 "SR 37"

Eq.
Sta 1598+24.48 "NWR-3" =
OPOT Sta. 166+61.03 "SR 37", 36.81' Lt.

Begin Incidental Const.
Sta. 500+00.00 "NER-3"
Sta. 1598+85.14 "NWR-3"
Begin Construction
End Incidental Const.
Sta. 501+00.00 "NER-3"
Sta. 1597+85.14 "NWR-3"

Eq.
POT Sta. 173+71.20 "SR 37" =
PC Sta. 1173+71.20 "PR-SR 37"

Eq.
Sta 500+60.64 "NER-3" =
OPOT Sta. 166+61.03 "SR 37", 36.95' Rt.

LEGEND

(xx) Parcel Number

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
9/6/2012
DATE

DESIGNED: MDO
DRAWN: BDM
CHECKED: HCF
CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PLAT NO. 1

STA. 1517+00 TO STA. 1535+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PL-03	19 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

△1 09/25/12 - Miscellaneous revisions

1540 1545 1550 1555

Sec. 19, T-8-N, R-1-W
Perry Township
Monroe County

JERRY D. & RUTH ANN BAILEY
DEED BOOK 180, PAGE 132

46
JERRY D. & RUTH ANN BAILEY
DEED BOOK 319, PAGE 322

21
SHARON ELGAR REVOCABLE TRUST
DEED BOOK 414, PAGE 698

¼ Section Line

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

Temp. R/W for Building Removal

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

SHARON ELGAR REVOCABLE TRUST
DEED BOOK 414, PAGE 696

36
VITUS EMERSON
DEED BOOK 217, PAGE 107

LORETTA SUE GRAY
DEED BOOK 403, PAGE 182

JOSEPH M. & LISA KLEINDORFER
INST. #2005004927

THAT ROAD

ROCKPORT ROAD

END PROJECT 1006075
Sta. 1553+25.00 "PR-A"
Sta. 215+13.48 "SR 37"

Begin Incidental Construction
Sta. 1553+25.00 "PR-A"

End Incidental Construction
Sta. 217+60.00 "SR 37"

Line "NWR-3"

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

Line "PR-A" (To Be Constructed)

Ex. R/W

37
STATE R/W

34
STATE R/W

I-69 Southbound

I-69 Northbound

Existing SR 37

Line "SR 37" and Line "PR-A"

Line "SR 37"

Line "A"

Line "A"

22
STATE R/W

31
STATE R/W

Eq.:
Sta. 1554+30.00 "PR-A" (BK) =
Sta. 216+18.47 "SR 37" (AH)

LEVI BENTON & VELMA WRIGHT
DEED BOOK 94, PAGE 640

26

43
LOT 5

23
COLYN J. CROWDER REVACABLE LIVING TRUST
INST. #1999009639

25
STATE R/W

22
STATE R/W

30
STATE R/W

38
JAMES E. STOGSDILL IRREVOCABLE TRUST
INST. #2003008885

32
EDWARD L. RADER AND DOROTHY L. RADER JOINT REVOCABLE TRUST AGREEMENT
INST. #2007022769

28

29
LORI A. ABRAM & BRENT WEIGER
INST. #2007020717

LOT 4

LOT 3

LOT 7

LOT 8

LOT 1

LOT 2

LOT 9

GLENVIEW SUBDIVISION
CAB. C, ENV. 172

JEREMY DR.

Sec. 19, T-8-N, R-1-W
Perry Township
Monroe County

LEGEND

(xx) Parcel Number

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: BDM
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

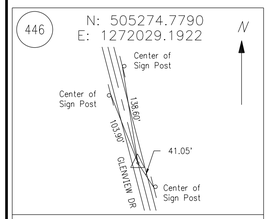
PLAT NO. 1
STA. 1535+00 TO STA. 1554+87.53 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

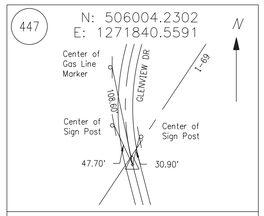
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PL-04	20 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

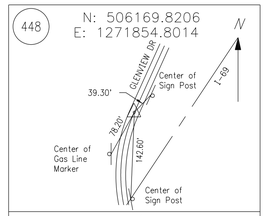
BASELINE CONTROL POINTS



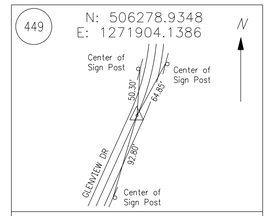
MAG NAIL w/WASHER SET
P.O.T. STA. 0+00.00 LINE "GLENVIEW DR"



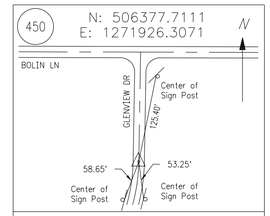
MAG NAIL w/WASHER SET
P.C. STA. 7+53.45 LINE "GLENVIEW DR"



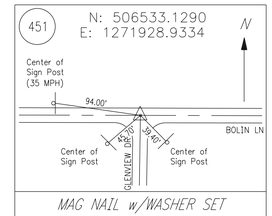
MAG NAIL w/WASHER SET
P.T. STA. 9+22.87 LINE "GLENVIEW DR"



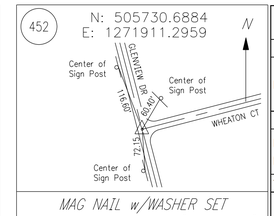
MAG NAIL w/WASHER SET
P.C. STA. 10+42.62 LINE "GLENVIEW DR"



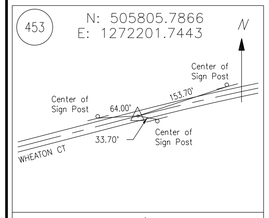
MAG NAIL w/WASHER SET
P.I. STA. 11+44.56 LINE "GLENVIEW DR"



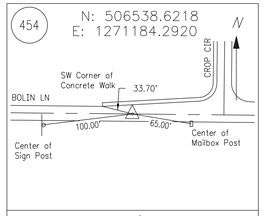
MAG NAIL w/WASHER SET
EQ: P.O.T. STA. 17+44.67 LINE "BOLIN LN"=
P.O.T. STA. 13+00.00 LINE "GLENVIEW DR"



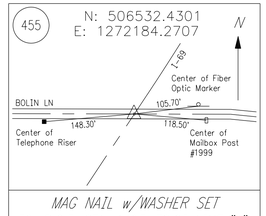
MAG NAIL w/WASHER SET
EQ: P.O.T. STA. 4+70.91 LINE "GLENVIEW DR"=
P.O.T. STA. 0+00.00 LINE "WHEATON CT"



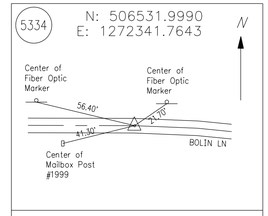
MAG NAIL w/WASHER SET
P.O.T. STA. 3+00.00 LINE "WHEATON CT"



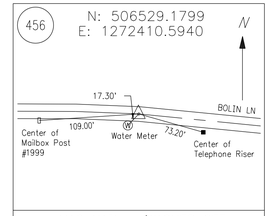
MAG NAIL w/WASHER SET
P.O.T. STA. 10+00.00 LINE "BOLIN LN"



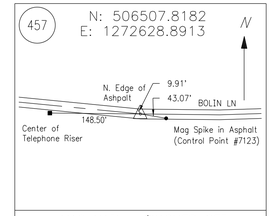
MAG NAIL w/WASHER SET
EQ: P.O.T. STA. 1493+78.63 LINE "A"=
P.O.T. STA. 20+00.00 LINE "BOLIN LN"



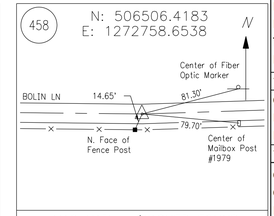
RAILROAD SPIKE FOUND
P.I. STA. 21+57.50 LINE "BOLIN LN"



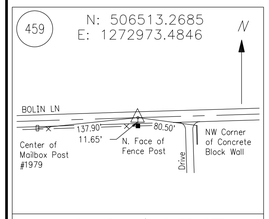
MAG NAIL w/WASHER SET
P.I. STA. 22+26.39 LINE "BOLIN LN"



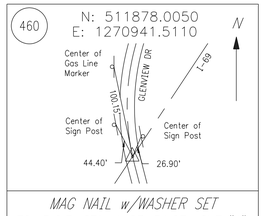
MAG NAIL w/WASHER SET
P.I. STA. 24+45.73 LINE "BOLIN LN"



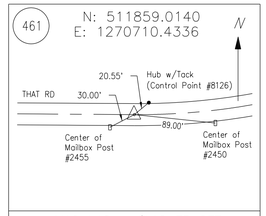
MAG NAIL w/WASHER FOUND
P.I. STA. 25+75.50 LINE "BOLIN LN"



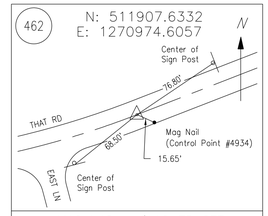
MAG NAIL w/WASHER SET
P.I. STA. 27+90.94 LINE "BOLIN LN"



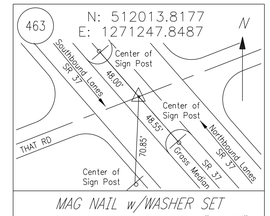
MAG NAIL w/WASHER SET
EQ: P.O.T. STA. 1487+54.27 LINE "A"=
P.O.C. STA. 7+61.96 LINE "GLENVIEW DR"



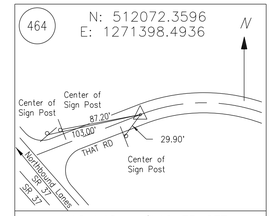
MAG NAIL w/WASHER SET
P.C. STA. 44+10.63 LINE "THAT RD"



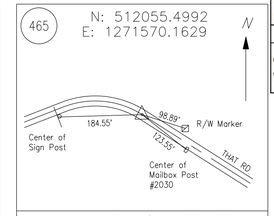
MAG NAIL w/WASHER SET
P.I. STA. 46+80.84 LINE "THAT RD"



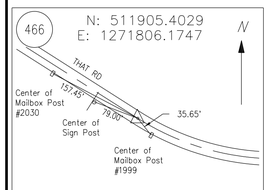
MAG NAIL w/WASHER SET
EQ: P.O.C STA. 217+00.00 LINE "SR 37" =
P.O.T. STA. 49+73.99 LINE "THAT RD"



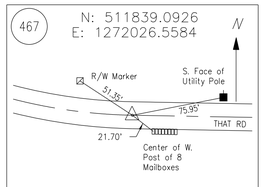
MAG NAIL w/WASHER SET
P.C. STA. 51+35.61 LINE "THAT RD"



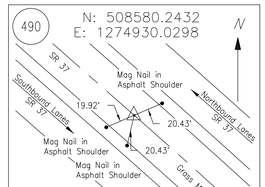
MAG NAIL w/WASHER SET
P.I. STA. 53+15.19 LINE "THAT RD"



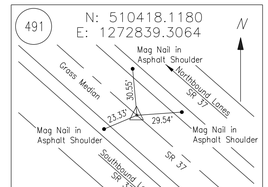
MAG NAIL w/WASHER SET
P.C. STA. 55+94.20 LINE "THAT RD"



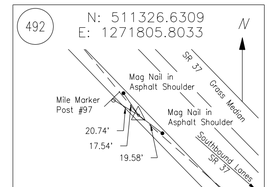
MAG NAIL w/WASHER SET
P.T. STA. 58+28.43 LINE "THAT RD"



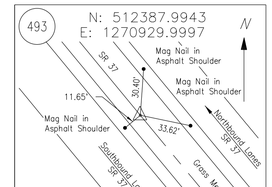
1" ø REBAR FOUND
P.T. STA. 166+61.04 LINE "SR 37"



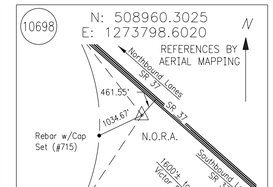
BRASS MONUMENT IN CONCRETE
P.C. STA. 194+44.72 LINE "SR 37"



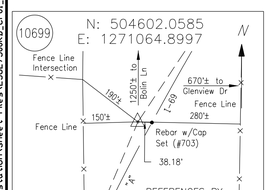
BRASS MONUMENT IN CONCRETE
P.I. STA. 208+20.78 LINE "SR 37"



BRASS MONUMENT IN CONCRETE
P.T. STA. 221+90.07 LINE "SR 37"



REBAR w/CAP SET
P.I. STA. 1522+94.22 LINE "A"



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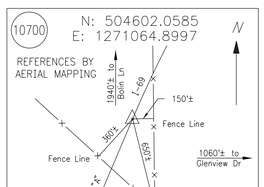

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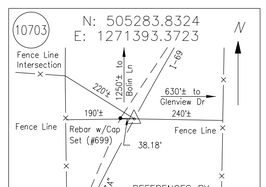
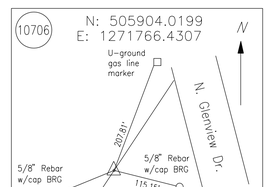
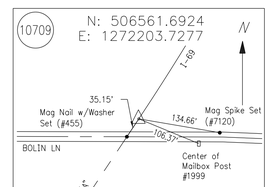
P.C. STA. 1471+42.94 LINE "A"



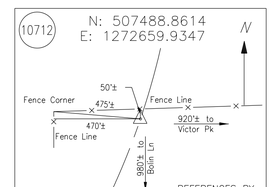
REBAR w/CAP SET
P.O.C. STA. 1479+00.00 LINE "A"



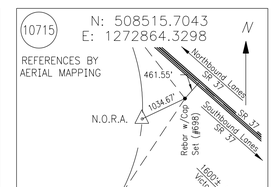
REBAR W/CAP SET
P.T. STA. 1486+23.99 LINE "A"



REBAR w/CAP SET
P.C. STA. 1494+13.78 LINE "A"



REBAR w/CAP SET
P.O.C. STA. 1504+50.00 LINE "A"



REBAR w/CAP SET
P.O.C. STA. 1515+00.00 LINE "A"

BENCHMARK DATA

BM#	STATION	OFFSET	LINE	NORTHING	EASTING	ELEVATION
BLA #64						716.080
BLA- ALUMINUM MONUMENT JUST SOUTHEASTERLY OF VICTOR PIKE IN GRASS MEDIAN OF S.R. 37						
TBM 1	217+17.04	59.6075	SR 37	512065.8437	1271281.55	772.745
RAILROAD SPIKE SET IN SHOULDER OF NORTH BOUND LANE OF S.R. 37 ON WEST SIDE AND 50 NORTH OF THE CENTERLINE OF THAT ROAD						
TBM #9003						761.425
MAG NAIL IN PWP (NO NUMBER) SOUTH SIDE KOONTZ RD ACROSS FROM HOUSE #5714						
TBM# 9004						688.432
BOAT SPIKE FOUND IN THE NORTHEAST FACE OF A POWER POLE (#159-362) 1.0' ABOVE GRADE, LOCTED 25' WEST OF THE INTERSECTION OF DILLMAN ROAD AND VICTOR PIKE, 1.0' SOUTH OF THE CENTERLINE OF A GRAVEL DRIVE AND 0.7' MILES WEST OF THE CENTERLINE OF DILLMAN ROAD/S.R. 37						
TBM# 9005						607.963
CUT "Δ" ON THE NORTHEAST CORNER OF A CONCRETE CASTING OF A DROP INLET DRAIN, LOCATED 35' WEST OF THE CENTERLINE OF VICTOR PIKE, 15 NORTH OF THE BACK OF CURB OF INTERSECTION OF VICTOR PIKE AND TRAMWAY ROAD THE SOUTH ENTRANCE TO STONE MILL,						
TBM# 9006	10+89.63	-26.7818	BOLIN LANE	506564.7417	1271274.1174	660.2791
CUT " ⊡ " IN THE SOUTHEAST CORNER OF A CONCRETE CULVERT, LOCATED 20' NORTH OF THE CENTERLINE OF BOLIN LANE AND 2000' WEST OF THE INTERSECTION OF VICTOR PIKE AND BOLIN LANE						
TBM 9077	198+20.85	-236.1524	SR 37	510495.6128	1272399.7871	762.369
BOAT SPIKE SET IN THE EAST FACE OF A POWER POLE (#763-037) 0.5' ABOVE GRADE, LOCATED 50' WEST OF THE CENTERLINE OF BIG SKY LANE AND 150' WEST OF THE INTERSECTION OF S.R. 37 AND BIG SKY LANE.						
TBM 9500						655.240
CUT " ⊡ " IN THE NORTHWEST CORNER OF ELECTRIC BOX #25 (2038) AT SOUTHWEST CORNER OF WHEATON COURT & GLENVIEW DRIVE						

DATE: 10/1/2012
TIME: 10:41:20 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275300RD_CP01_AE.dgn

1 09/25/12 - Text edit

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

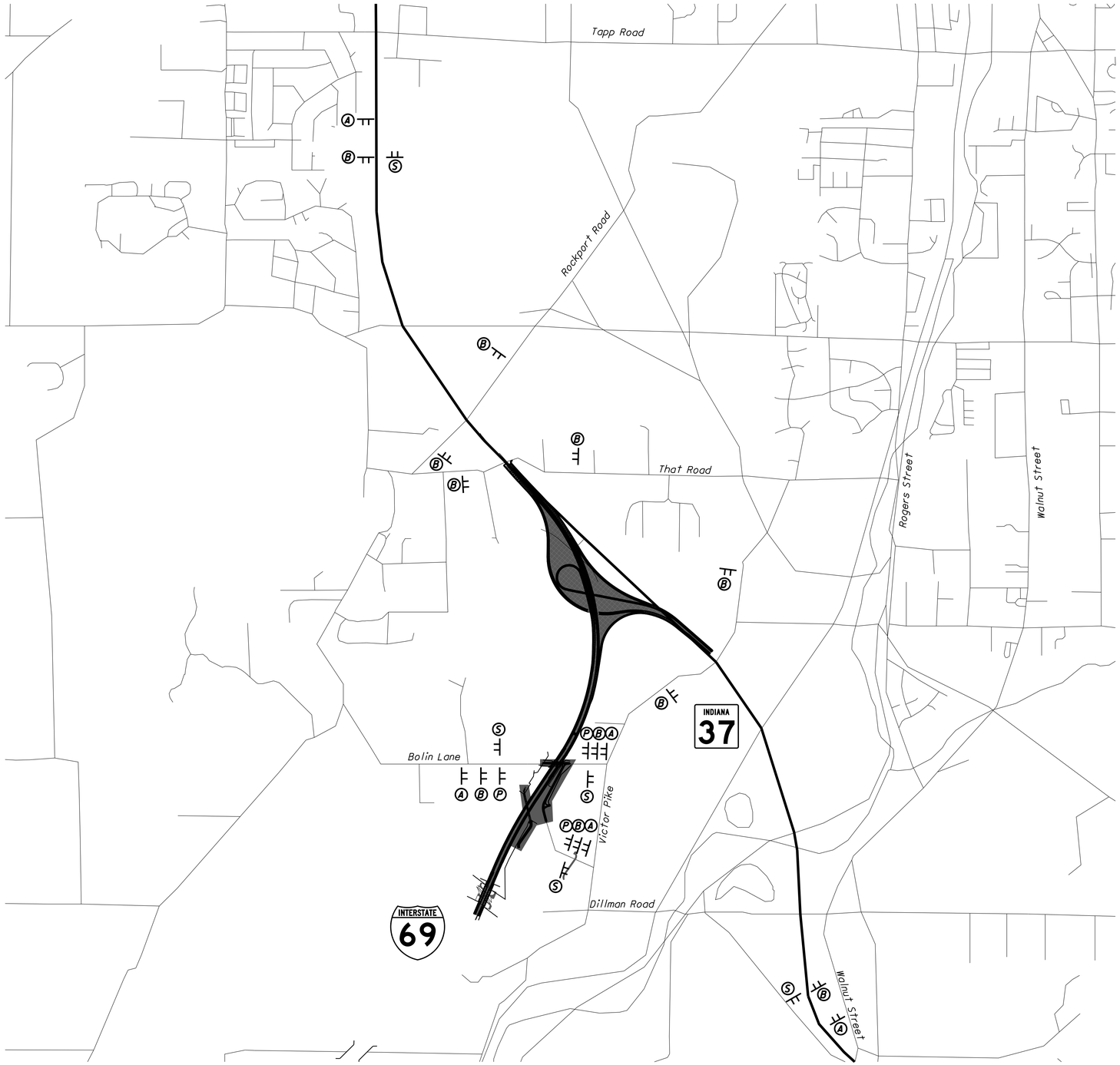
DESIGNED: MDO | DRAWN: BDM
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

BASELINE CONTROL REFERENCE AND BENCHMARK INFORMATION

HORIZONTAL SCALE	BRIDGE FILE
NONE	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	CP-01	21 of 173
CONTRACT	PROJECT	
IR-33742	1006075	



GENERAL NOTES

1. Standards 801-TCLG-01 or as shown
2. Additional Signs for Flagging Operations
   Construction Sign, A, W20-7a-A (48"x48") Flagger
   Construction Sign, A, W20-4 (48"x48") One Lane Road Ahead
3. Additional Signs for Blasting if Req'd.
   Construction Sign, A, W22-1 (48"x48") Blasting Zone Ahead
   Construction Sign, A, W22-2 (42"x36") Turn Off 2-Way Radio and Cell Phone.
   Construction Sign, A, W22-3 (42"x36") End Blasting Zone
4. See Sheet 23 for Sign Details.

LEGEND

SPEEDING
MAX $1000
RECKLESS DRIVING
MAX 8 YRS

(A) Construction Sign, C, XG20-7 (Worksite Penalty)(78"x42")

ROAD CONSTRUCTION AHEAD

(B) Construction Sign, A, XW20-1 (Road Construction Ahead)(48"x48")

SHOULDER WORK

(P) Construction Sign, A, XW21-5-A (Shoulder Work)

END ROAD WORK

(S) Construction Sign, A, XG20-2 (End Constuction)(60"x24")

Area under construction
Direction of Traffic
Line and Prismatic Reflectors, Remove
Channelizing Device
Flashing Arrow Board
(31) Temporary Traffic Barrier
(3) TPM, White, 8 in.
(4) TPM, Yellow, 8 in.
(40) TPM, White, 4 in.
(41) TPM, Yellow, 4 in.
(45) TPM, Stop Line, 24 in.

MARK D. ORTON
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RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-01	22 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:23 AM

1 09/25/12 - Miscellaneous revisions

(A)

XG20-7

(B)

XW20-1a

(C)

R2-1

(D)

XW3-5

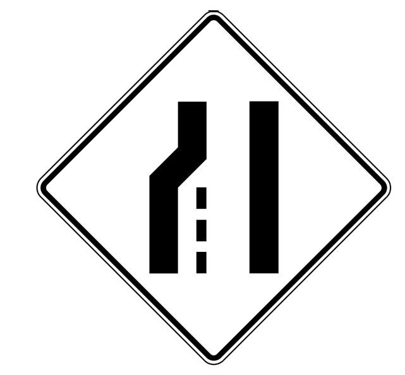
(E)

WW20-5(L)

(F)

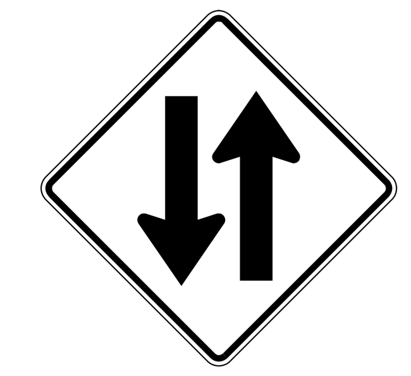
XW9-2(R)

(G)



XW4-2

(H)



XW6-3-B

(J)

R5-1-B

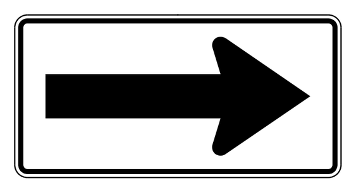
(K)

R4-1-B

(L)

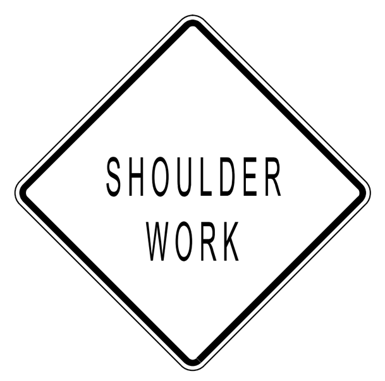
XW1-4-B(R)
XW13-1P

(M)



XW1-6

(P)

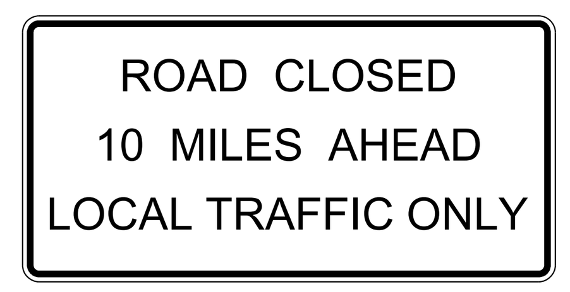


WW20-5(L)

(Q)

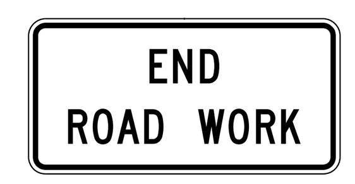
R11-2

(R)



R11-3

(S)



XG20-2

(T)

XW20-3

(U)

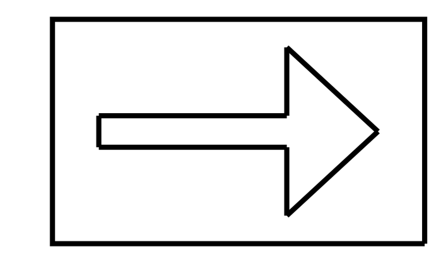
R3-5R

(V)

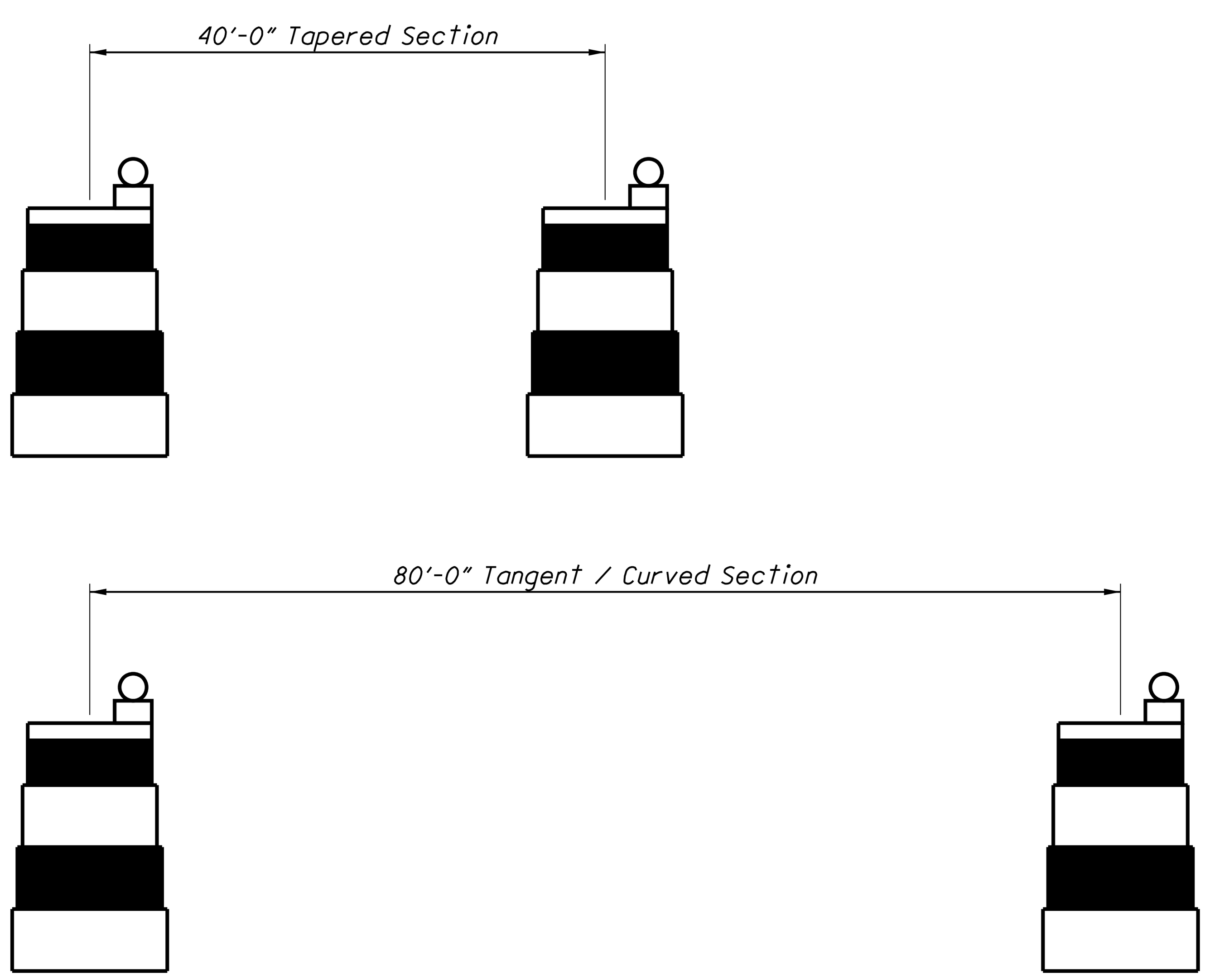
R10-12

(W)

R3-2



Flashing Arrow Sign



CONSTRUCTION BARREL SPACING

Quantity for Maintenance of Traffic	Units	Phase 1	Phase 2	Phase 3	Phase 4	Pay Quantity
Construction Sign, Type A	EACH	16	59	59	16	59
Construction Sign, Type B	EACH	4	20	20	4	20
Temporary Worksite Speed Limit Sign Assembly	EACH	4	4	4	4	4
Barricade, III-A	LFT	--	288	288	--	288
Barricade, III-B	LFT	168	264	312	--	312
Temporary Traffic Barrier, Type 2	LFT	515	3,000	1925	--	3,000
Energy Absorbing Terminal, CZ, TL-2	EACH	4	6	6	--	6
Temporary Pavement Marking, Removable, 4 In.	LFT	--	28,472	30,684	--	59,156
Temporary Pipe, 15"	LFT	550	550	550	--	550
Safety Metal End Section, 4:1, 15"	EACH	4	4	4	--	4
Temporary Pavement Marking, Removable, 8 In.	LFT	--	2,000	2,000	--	4,000
Temporary Pavement Message Marking, Arrow	EACH	--	8	8	--	16
Temporary Pavement Marking, Removable, 24 In.	LFT	--	40	40	--	80
HMA, Surface, Type B	TON	446	--	--	--	446
HMA, Intermediate, Type B	TON	743	--	--	--	743
HMA, Base, Type B	TON	1,782	--	--	--	1,782
Asphalt for Track Coat	TON	2.8	--	--	--	2.8
Subgrade Treatment, Type IC	SYS	5,398	--	--	--	5,398
Flashing Arrow Sign	DAYS	--	45	45	--	90
Traffic Signal Head, 1 way, 3 section, 12", Red, Amber, Green	EACH	4	4	4	--	4
Signal Cable, 5C/14	LFT	1,000	1,000	1,000	--	1,000
Maintaining Traffic	LS	--	--	--	--	1

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 9/6/2012
DESIGN ENGINEER DATE

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
SIGN DETAILS

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	MS-02 / 23 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/1/2012
TIME: 10:41:25 AM

1 09/25/12 - Miscellaneous revisions

BEGIN PROJECT 1006075
END PROJECT 0500450
Sta. 1462+50.00 "A"

Unnamed Trib. (UNT) of Clear Creek

I-69 Southbound

I-69 Northbound

Line "A"

MATCHLINE STA. 1478+00 "A"

Sequence of Operations

1. Construct Mainline I-69 with exception from Station 1486+00 "PR-A" to Station 1496+00 "PR-A" until Phase 1-A, Phase 1-B & Phase 1-C are complete. (See Next Sheet)

MATCHLINE STA. 1478+00 "A"

Ex. Glenview Drive

Bolin Lane

I-69 Southbound

Line "A"

I-69 Northbound

Line "PR-Glenview Drive"

Proposed Glenview Drive

Wheaton Court

Line "Bolin Lane"

Line "PR-A"

Line "SER-3"

MATCHLINE STA. 1511+50 "PR-A"

To be completed as Phase 1-A, Phase 1-B & Phase 1-C
See Sheet 25

Area under construction

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO	DRAWN: KCH
CHECKED: HCF	CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

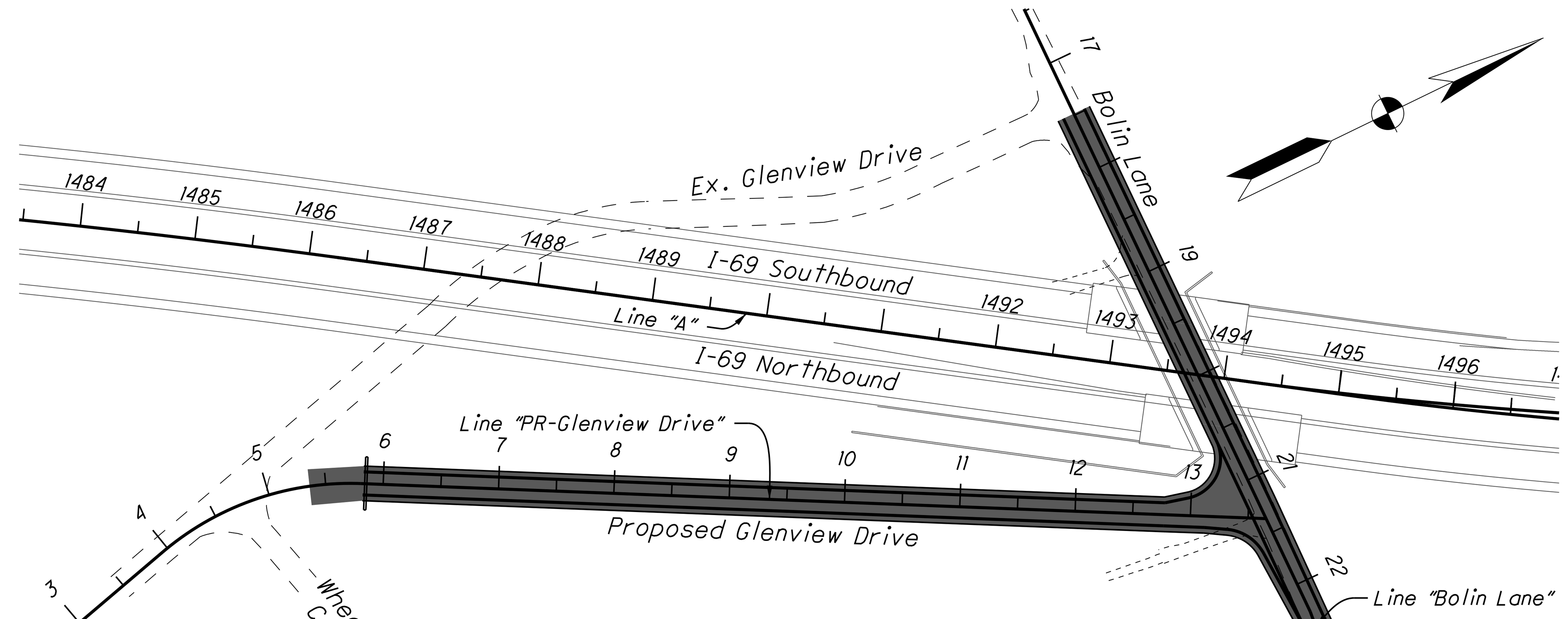
MAINTENANCE OF TRAFFIC
PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

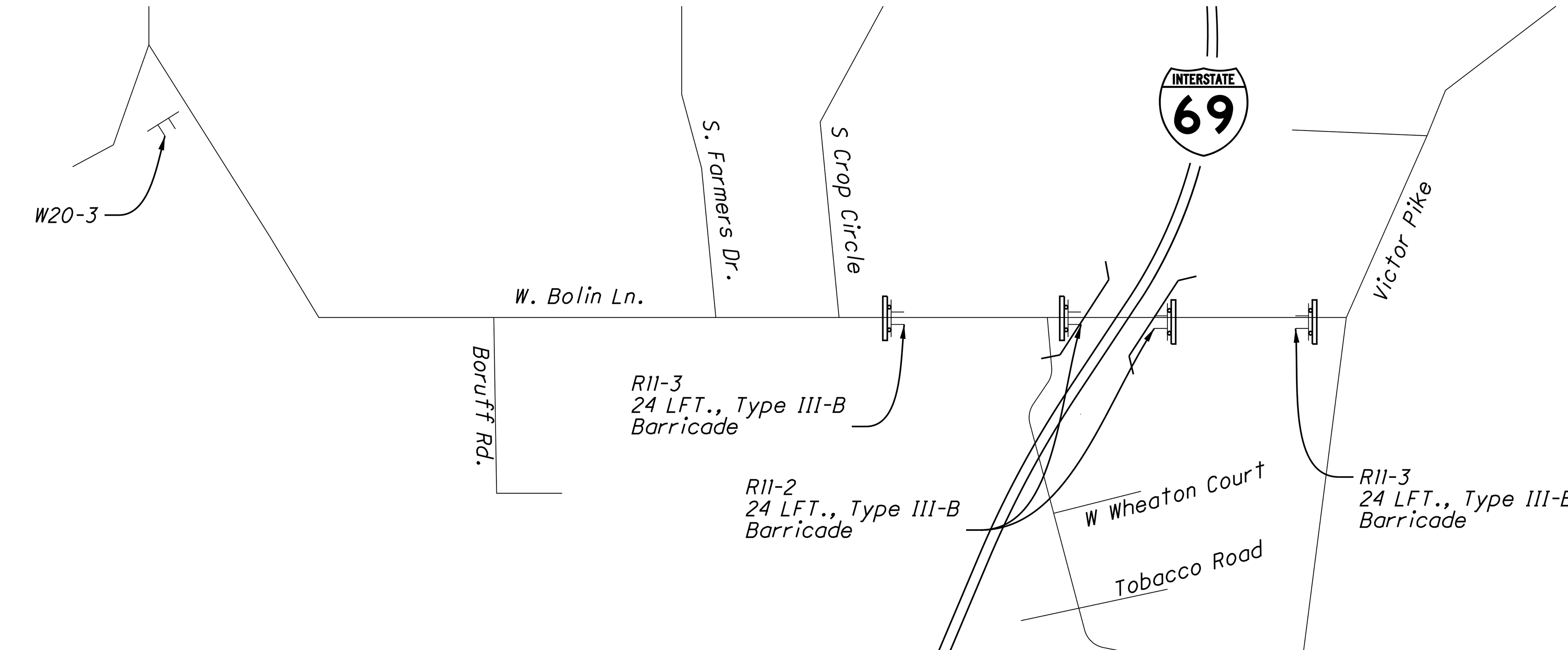
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-03	24 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:26 AM

1 09/25/12 - Miscellaneous revisions



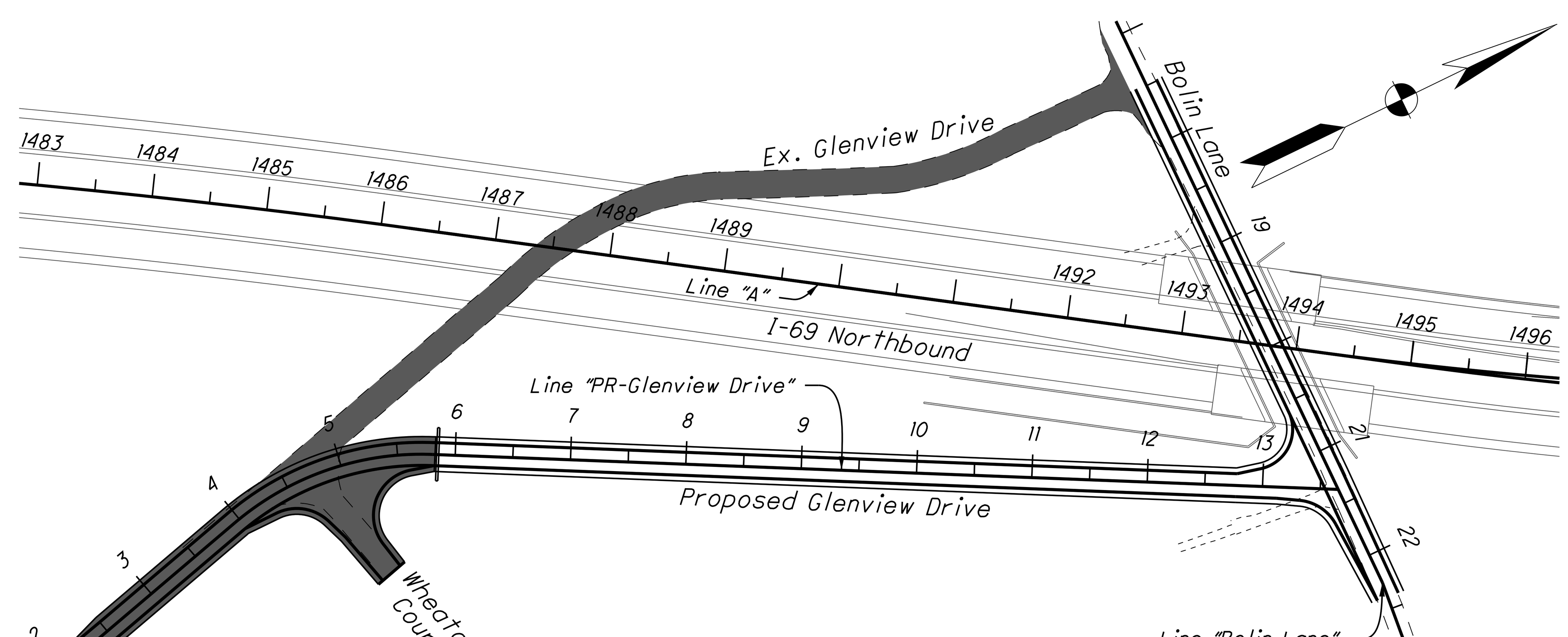
PHASE 1-A



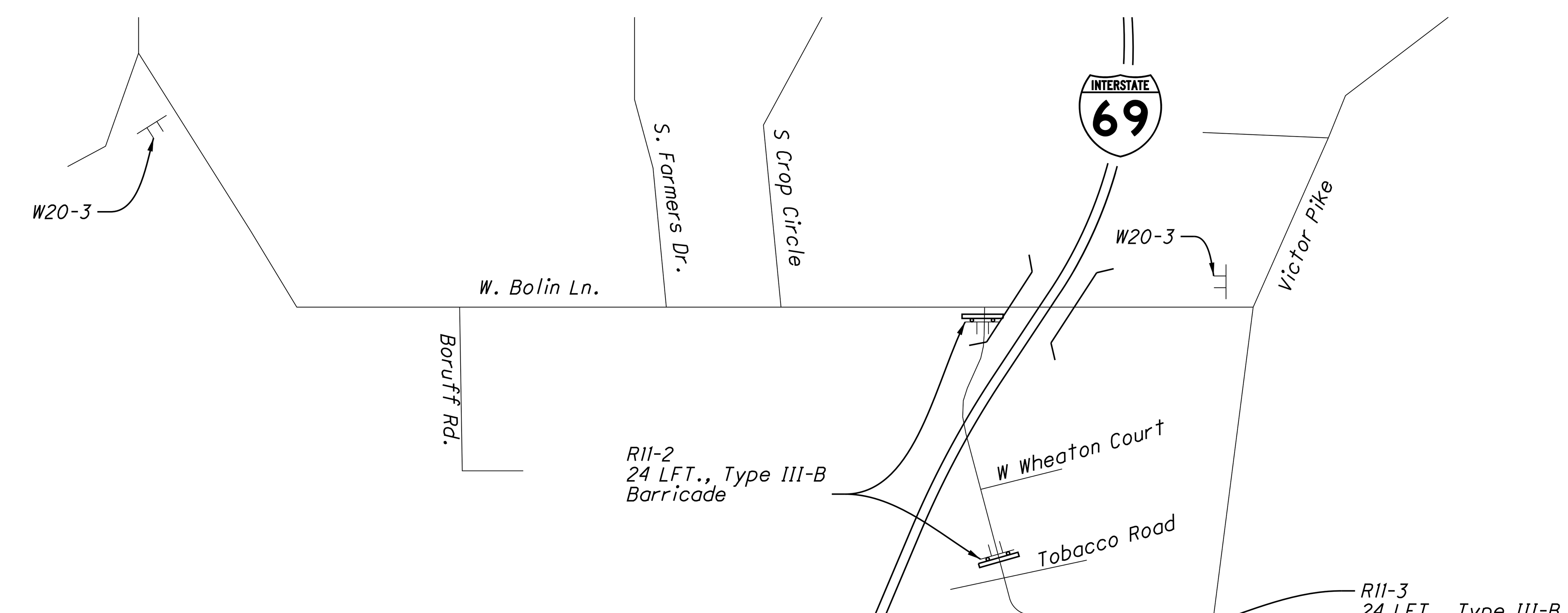
Traffic Sign Location - Phase 1-A

Sequence of Operations

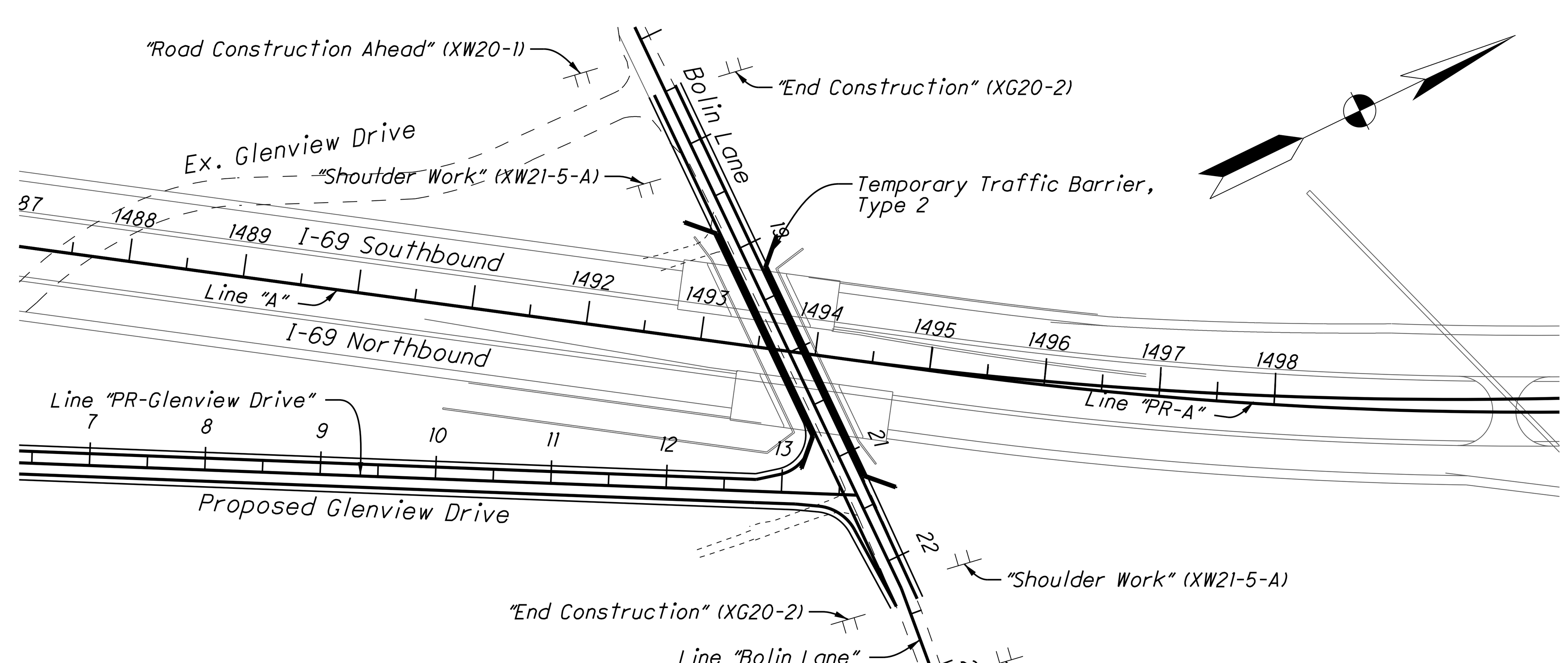
1. Construct Mainline I-69 with exception from Station 1486+00 "A" to Station 1496+00 "PR-A" until Phase 1-A, Phase 1-B & Phase 1-C are complete.
2. Phase 1-A - Construct Bolin Lane and relocated Glenview Drive as shown below. Existing Glenview Drive shall remain operable.
3. Phase 1-B - Complete Phase 1-A, open Bolin Lane, close and remove existing Glenview Drive, complete connection of Glenview Drive to proposed section. Wheaton Court to be Staged Construction.
4. Phase 1-C - Install Signage and Temporary Traffic Barrier, Type 2 along Bolin as shown.



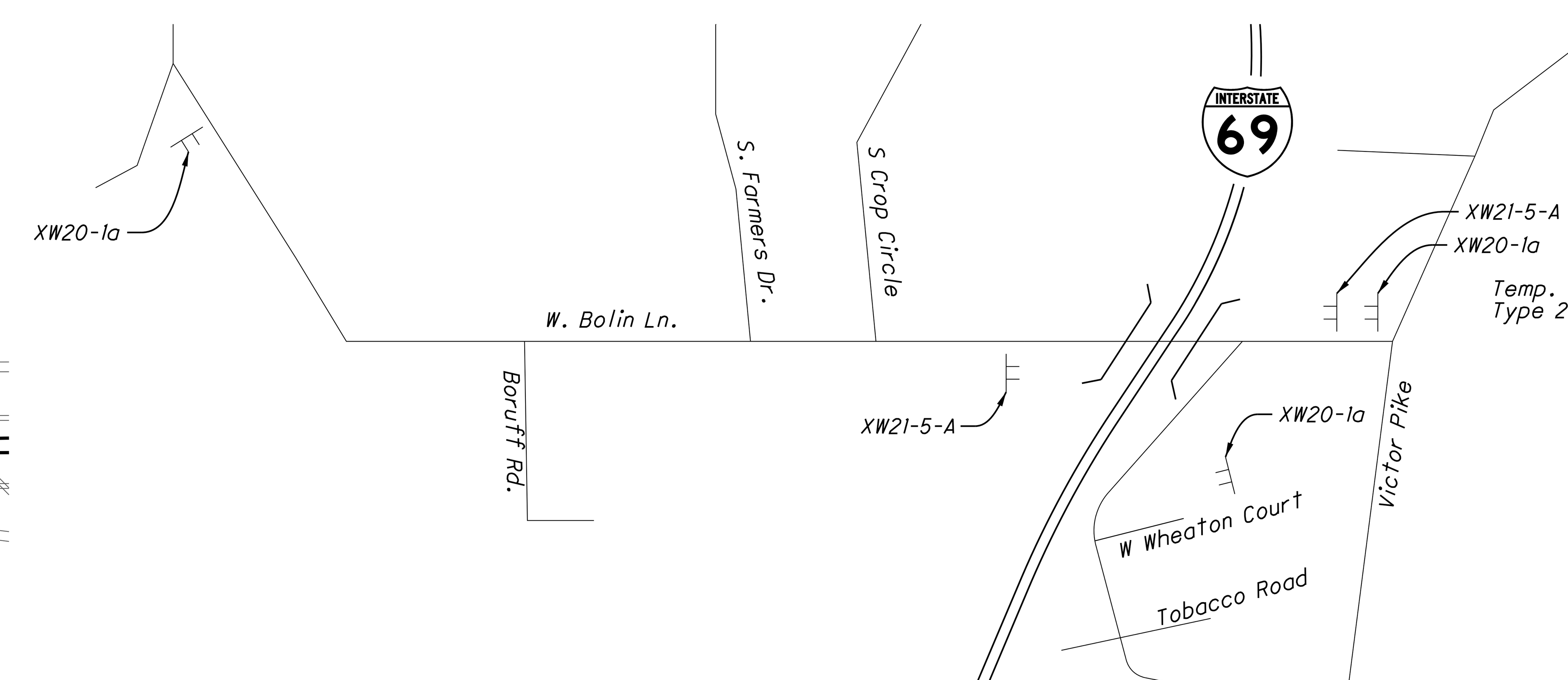
PHASE 1-B



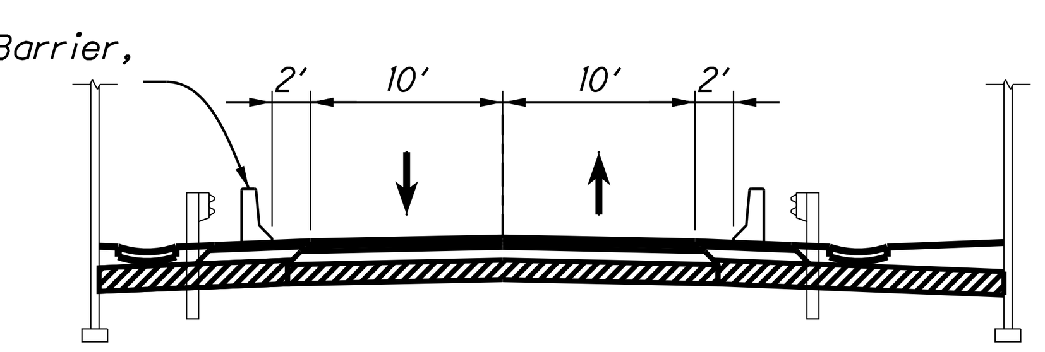
Traffic Sign Location - Phase 1-B



PHASE 1-C



Traffic Sign Location - Phase 1-C



TYPICAL SECTION - BOLIN LANE
TEMPORARY TRAFFIC BARRIER
Not to Scale

■	Area under construction

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

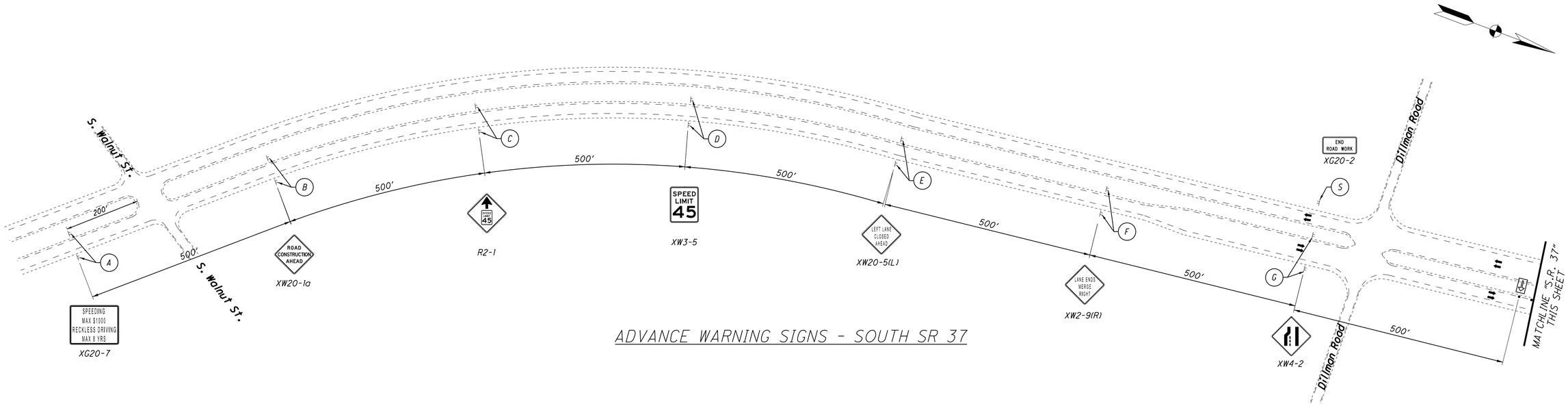
INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1-A, PHASE 1-B, & PHASE 1-C

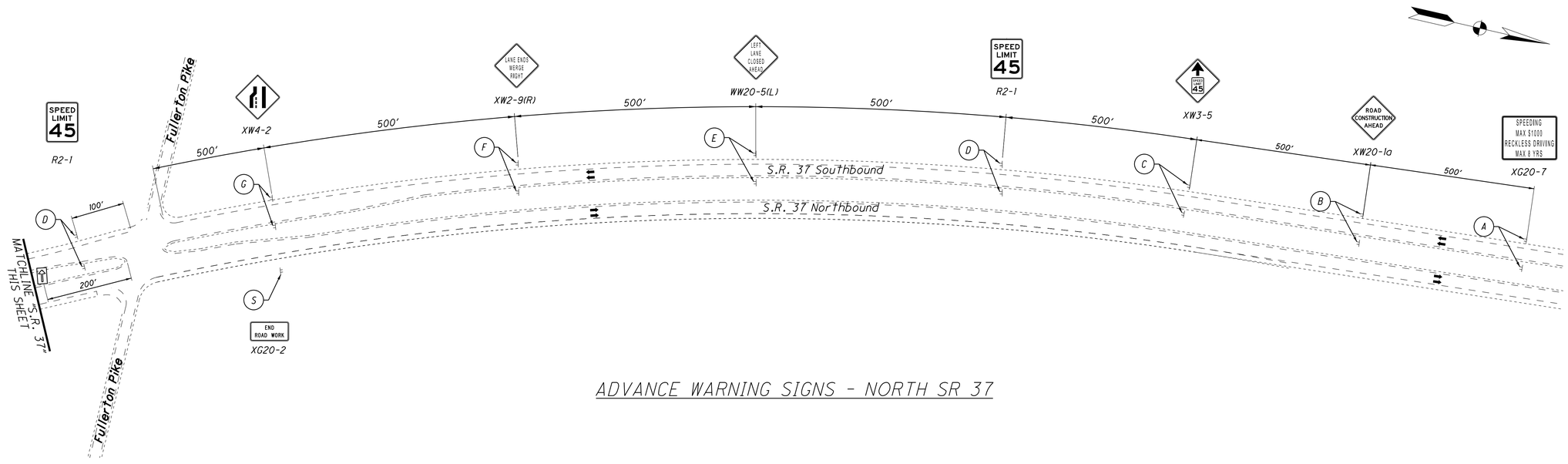
HORIZONTAL SCALE		BRIDGE FILE
1" = 100'		N/A
VERTICAL SCALE		DESIGNATION
N/A		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-04	25 of 173
CONTRACT		PROJECT
IR-33742		1006075

DATE: 10/1/2012
TIME: 10:41:28 AM

1 09/25/12 - Miscellaneous revisions



ADVANCE WARNING SIGNS - SOUTH SR 37



ADVANCE WARNING SIGNS - NORTH SR 37

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

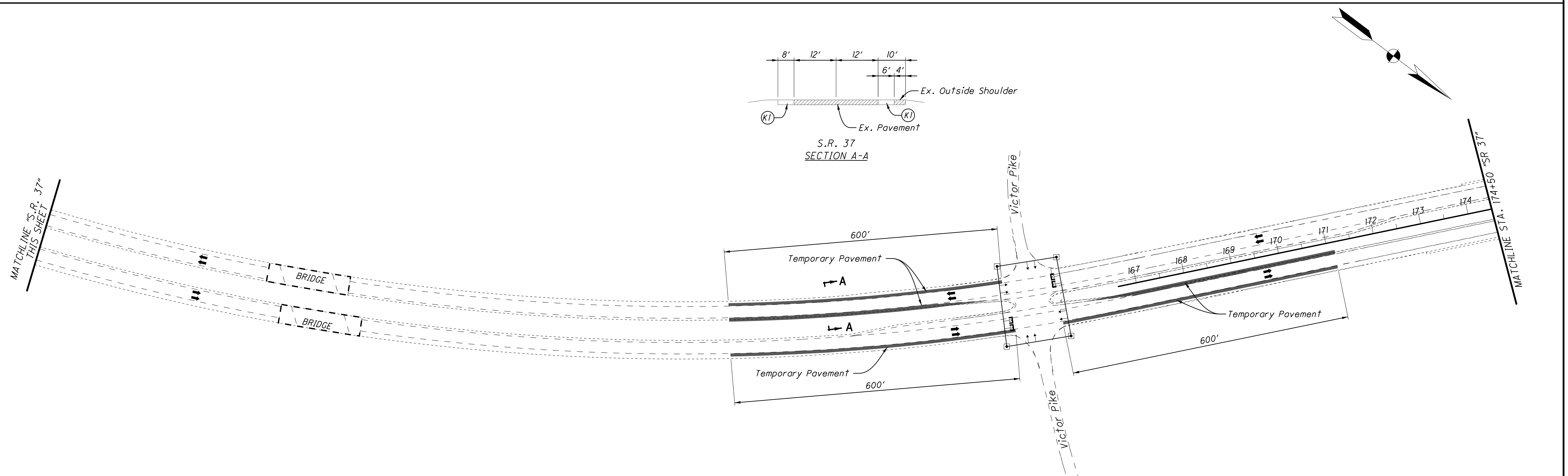
MAINTENANCE OF TRAFFIC
ADVANCE WARNING SIGNS

HORIZONTAL SCALE	BRIDGE FILE
NTS	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-05	26 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:29 AM

1 09/25/12 - Miscellaneous revisions



Area under construction

Existing Traffic Signal Head

Temporary Traffic Signal Head

Bagged Signal Head

(K1) 165 lb/yd2 HMA, Type B, Surface, on 275 lb/yd2 HMA, Type B, Intermediate, on 660 lb/yd2 HMA, Type B, Base, on Subgrade Treatment (Type IC)

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-06	27 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:30 AM

1 09/25/12 - Miscellaneous revisions

▇	Area under construction

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: [signature] 9/6/2012 — DESIGN ENGINEER, DATE

DESIGNED: MDO — DRAWN: KCH
CHECKED: HCF — CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

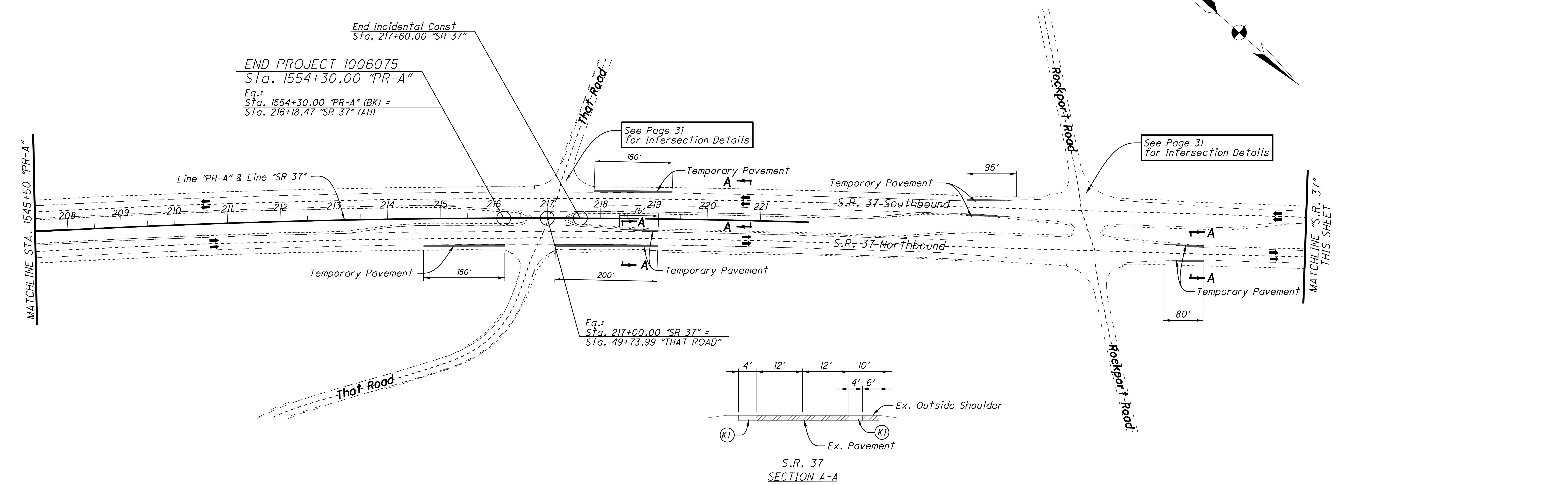
MAINTENANCE OF TRAFFIC
PHASE 1

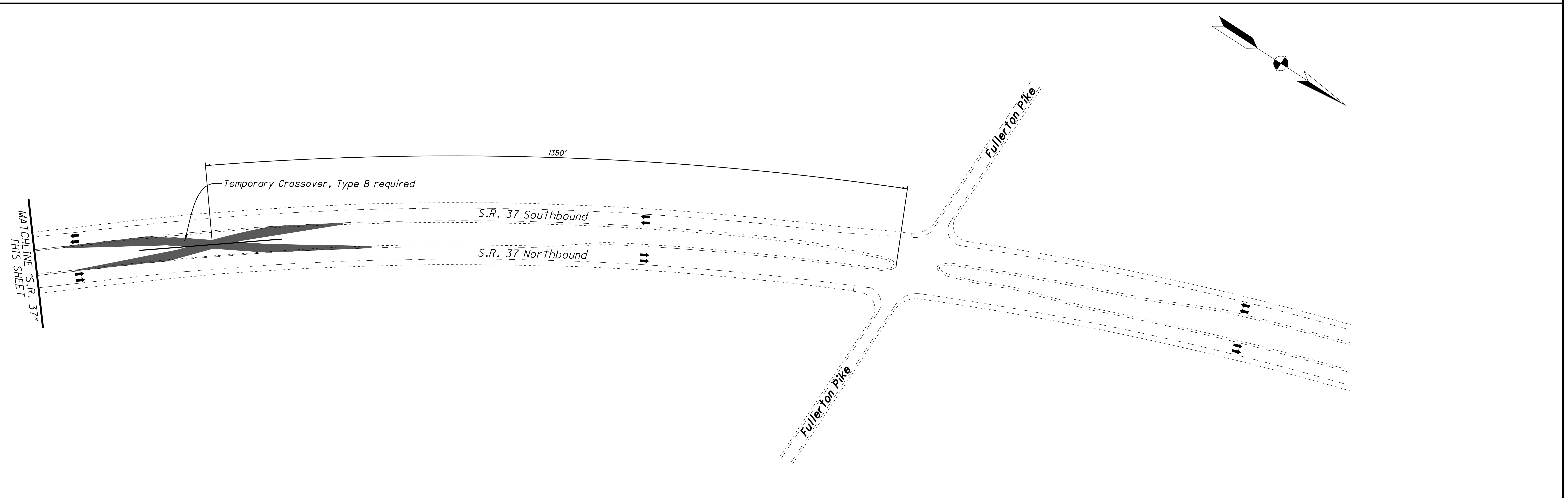
HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-07	28 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:31 AM

△1 09/25/12 - Miscellaneous revisions





Area under construction

(K1) 165 lb/yd2 HMA, Type B, Surface, on
275 lb/yd2 HMA, Type B, Intermediate, on
660 lb/yd2 HMA, Type B, Base, on
Subgrade Treatment (Type IC)

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] DESIGN ENGINEER 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

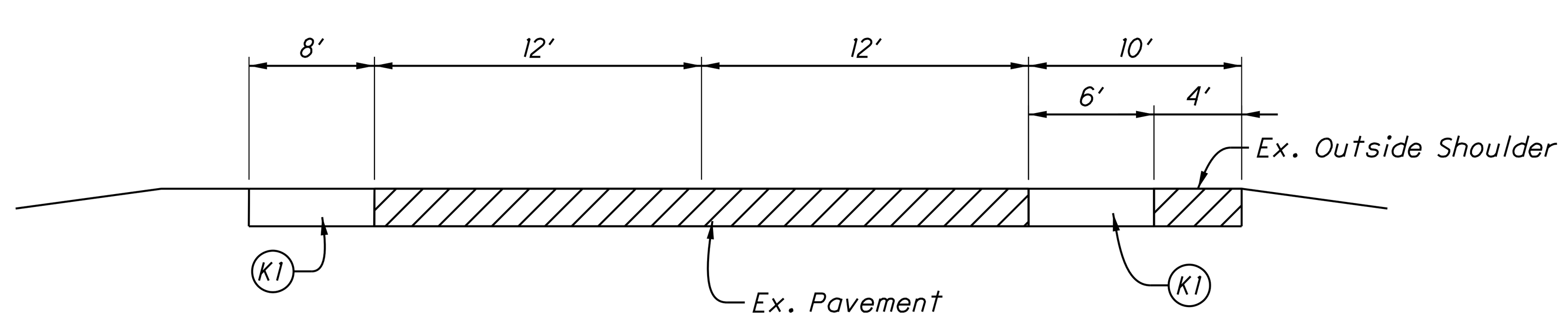
MAINTENANCE OF TRAFFIC

PHASE 1

HORIZONTAL SCALE		BRIDGE FILE
1" = 100'		N/A
VERTICAL SCALE		DESIGNATION
N/A		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-08	29 of 173
CONTRACT		PROJECT
IR-33742		1006075

DATE: 10/1/2012 TIME: 10:41:32 AM

1 09/25/12 - Miscellaneous revisions



S.R. 37

SECTION A-A

NOTE:
Install Temporary Traffic Signal Head no sooner than 5 days before activation.

Legend	
(shaded bar)	Area under construction
(solid arrow)	Existing Traffic Signal Head
(open arrow)	Temporary Traffic Signal Head
(bracket)	Bagged Signal Head

(K1) 165 lb/yd2 HMA, Type B, Surface, on 275 lb/yd2 HMA, Type B, Intermediate, on 660 lb/yd2 HMA, Type B, Base, on Subgrade Treatment (Type IC)

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 9/6/2012
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DESIGNED: MDO	DRAWN: KCH
CHECKED: HCF	CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 1 - INTERSECTION DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1" = 40'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-09	30 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

DATE: 10/1/2012
TIME: 10:41:23 AM

Area under construction

(K1) 165 lb/yd2 HMA, Type B, Surface, on
275 lb/yd2 HMA, Type B, Intermediate, on
660 lb/yd2 HMA, Type B, Base, on
Subgrade Treatment (Type IC)

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 9/6/2012
DESIGN ENGINEER DATE

DESIGNED: MDO	DRAWN: KCH
CHECKED: HCF	CHECKED: MDO

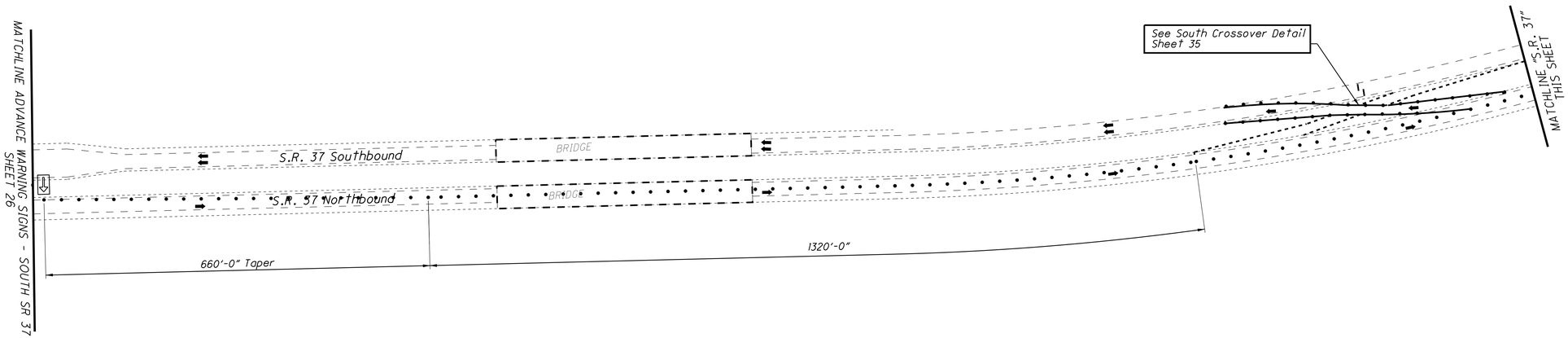
INDIANA
DEPARTMENT OF TRANSPORTATION

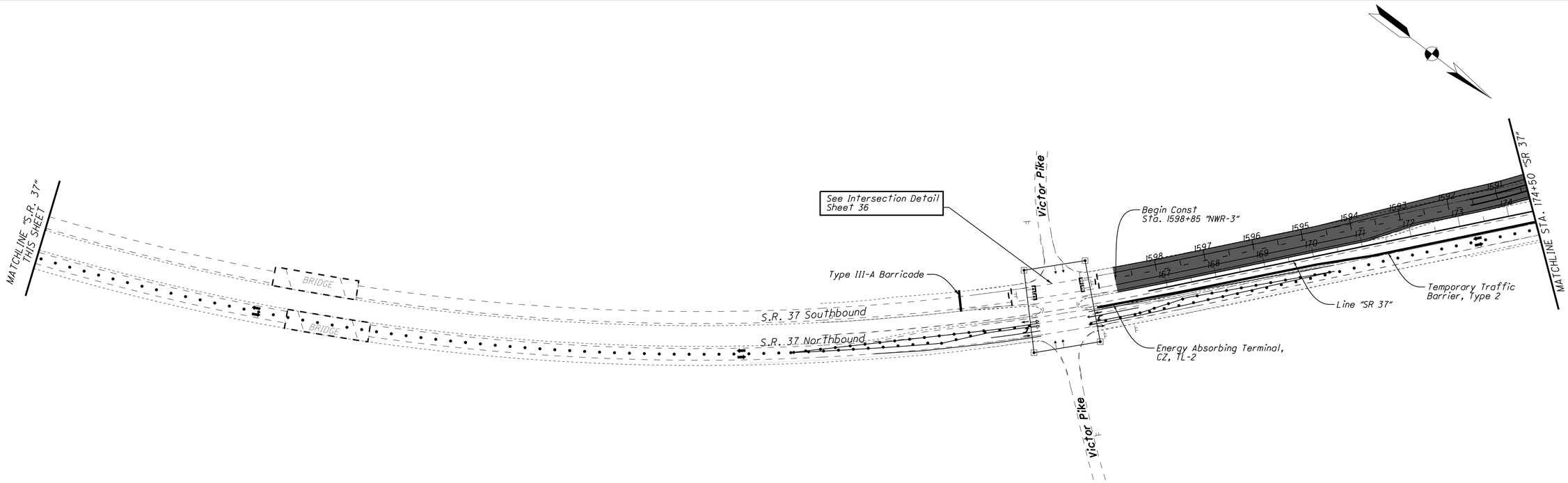
MAINTENANCE OF TRAFFIC
PHASE 1 - INTERSECTION DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
N/A	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-10	31 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:23 AM

1 09/25/12 - Miscellaneous revisions





Area under construction
Existing Traffic Signal Head
Temporary Traffic Signal Head
Bagged Signal Head
Flexible Tubular Markers (50' Spa.)
Flashing Arrow Board

MARK D. ORLICH
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-11	32 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:35 AM

1 09/25/12 - Miscellaneous revisions

Area under construction

• • • Flexible Tubular Markers (50' Spa.)

(40) TPM, White, 4 in.

(41) TPM, Yellow, 4 in.

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL ____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

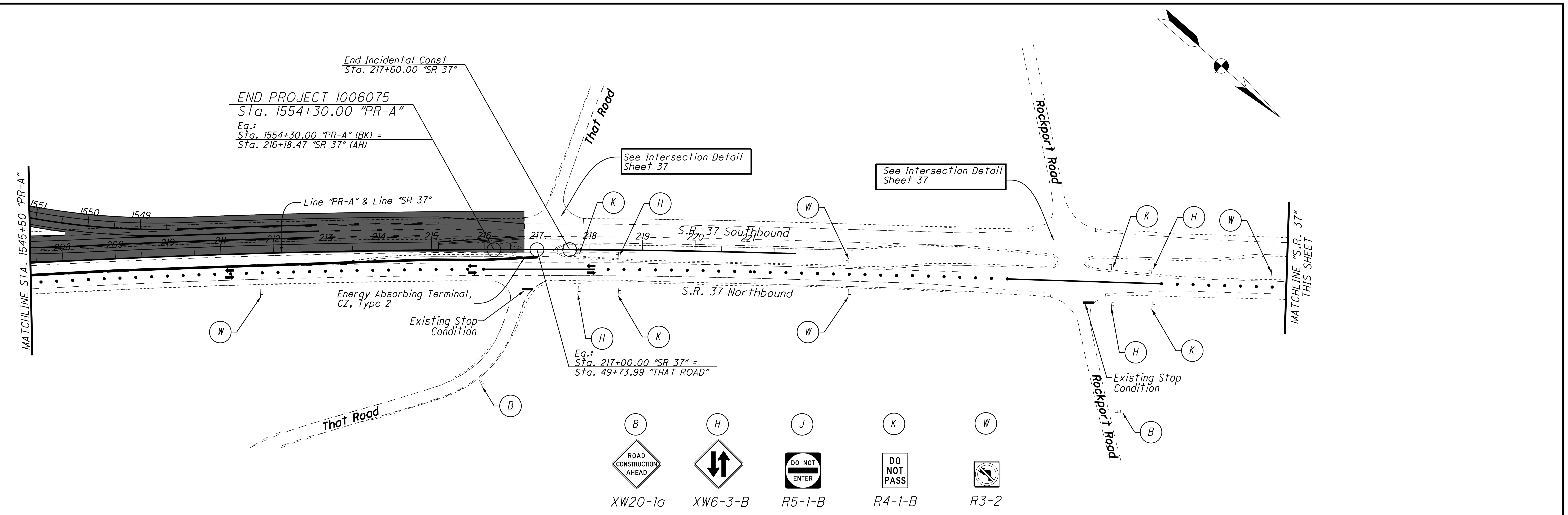
MAINTENANCE OF TRAFFIC

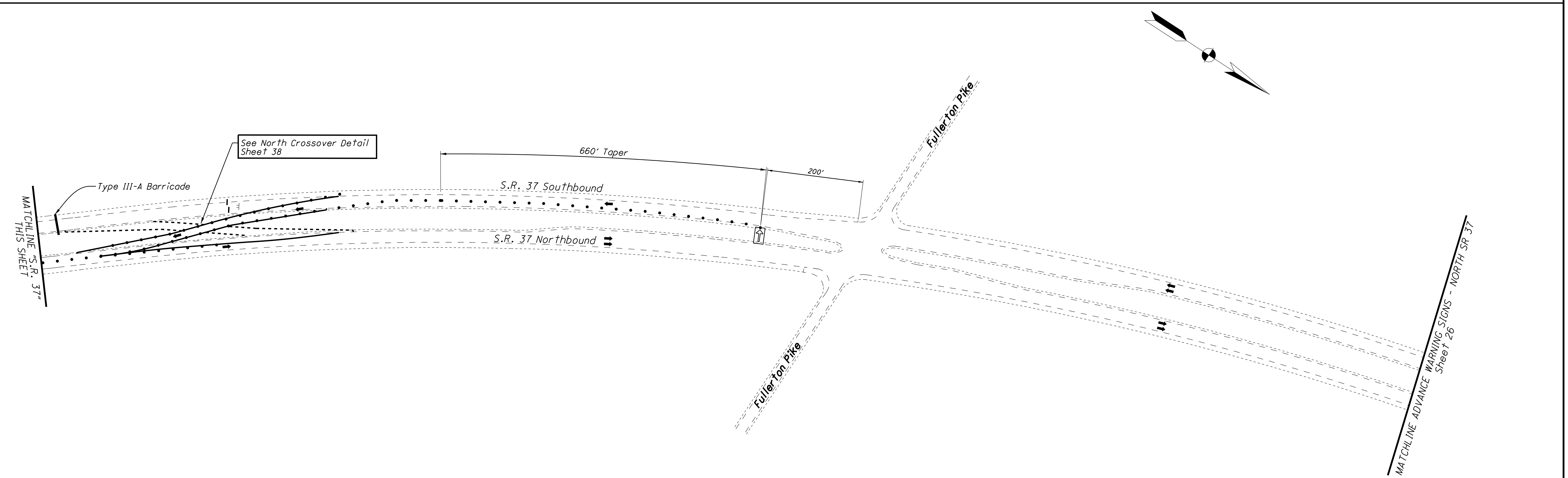
PHASE 2

HORIZONTAL SCALE	BRIDGE FILE	
1" = 100'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-12	33 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012 TIME: 10:41:36 AM

△1 09/25/12 - Miscellaneous revisions





Area under construction

Flexible Tubular Markers (50' Spa.)

Flashing Arrow Board

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

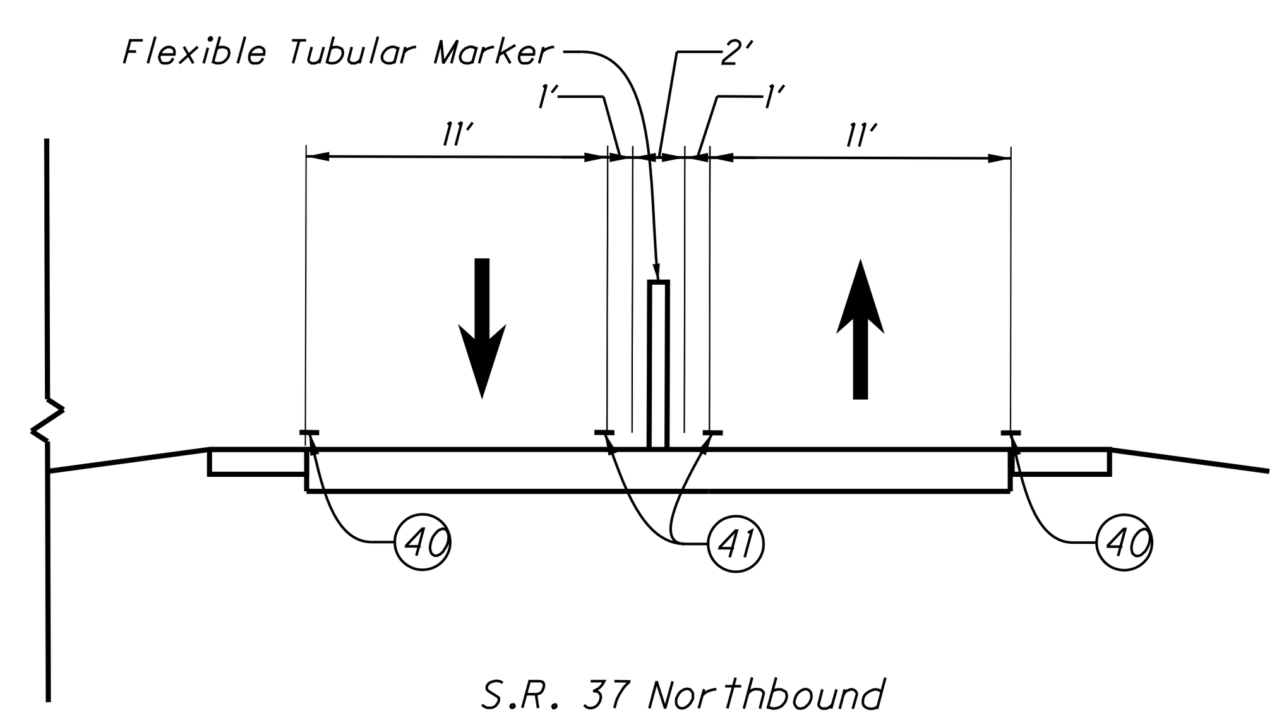
MAINTENANCE OF TRAFFIC
PHASE 2

HORIZONTAL SCALE		BRIDGE FILE
1" = 100'		N/A
VERTICAL SCALE		DESIGNATION
N/A		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-13	34 of 173
CONTRACT		PROJECT
IR-33742		1006075

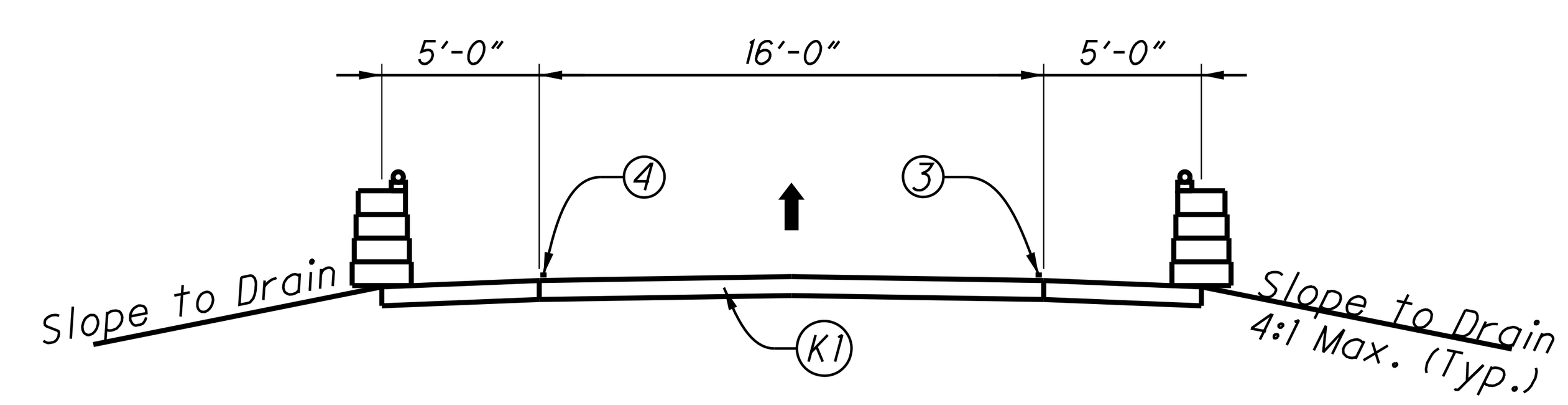
DATE: 10/1/2012 TIME: 10:41:37 AM

1 09/25/12 - Miscellaneous revisions

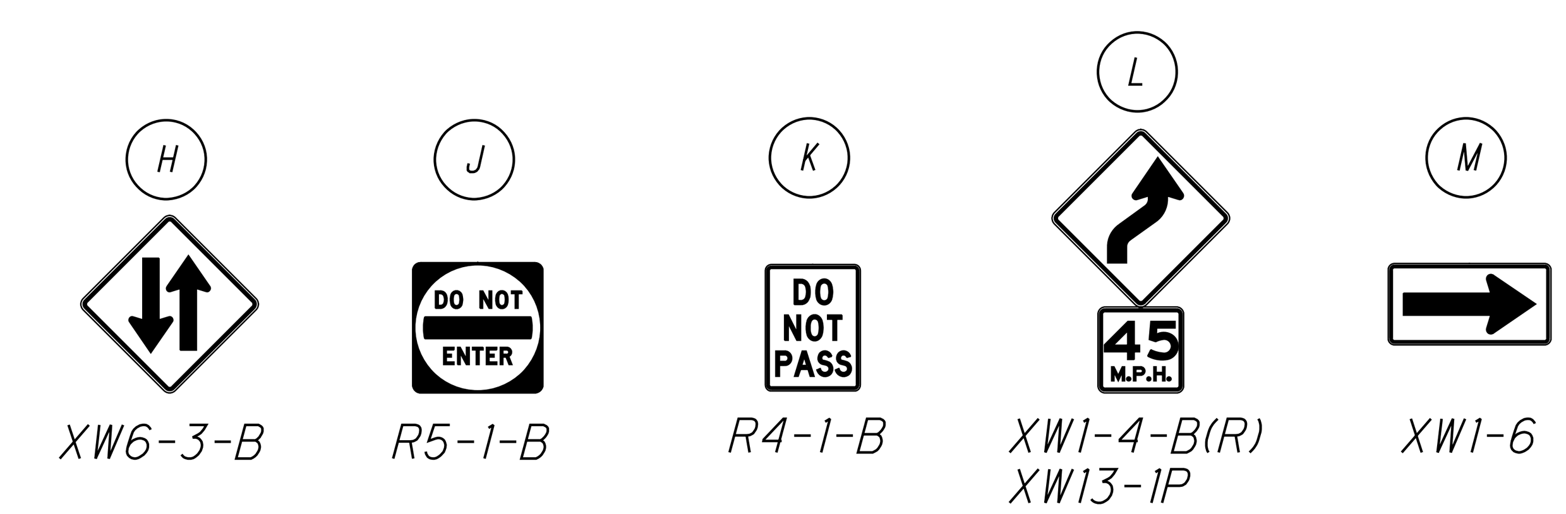
SOUTH TEMPORARY CROSSOVER DETAIL



S.R. 37 Northbound
SECTION B-B



SECTION "A-A"



(3)	Temp. Pavement Marking, Removable, 8 in., White	• • •	Flexible Tubular Markers (50' Spa.)
(4)	Temp. Pavement Marking, Removable, 8 in., Yellow	●	Construction Barrel
(40)	Temp. Pavement Marking, Removable, 4 in., White	(K1)	165 lb/yd2 HMA, Type B, Surface, on 275 lb/yd2 HMA, Type B, Intermediate, on 660 lb/yd2 HMA, Type B, Base, on Subgrade Treatment (Type IC)
(41)	Temp. Pavement Marking, Removable, 4 in., Yellow		
(45)	Temp. Pavement Marking, Removable, 24 in., White		
➡	Direction of Traffic		

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO — DRAWN: KCH
CHECKED: HCF — CHECKED: MDO

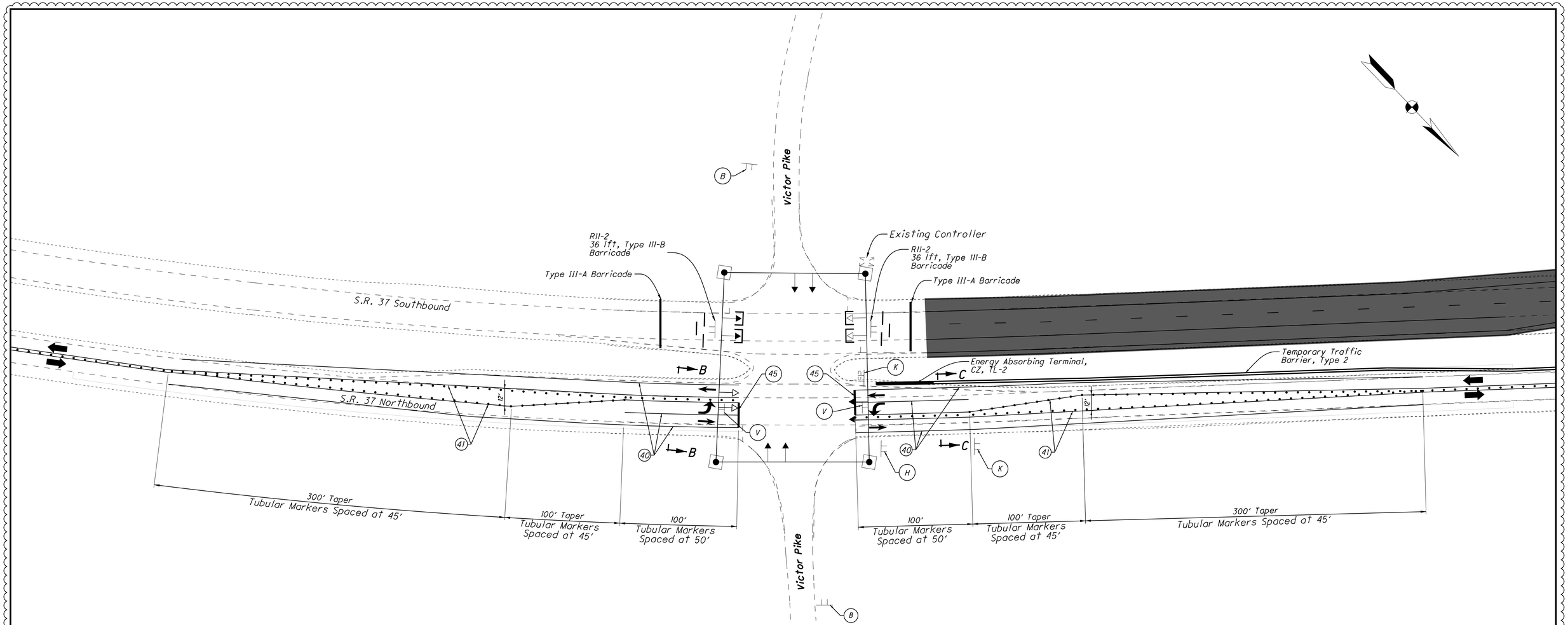
INDIANA
DEPARTMENT OF TRANSPORTATION

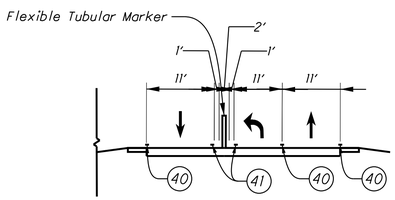
MAINTENANCE OF TRAFFIC
PHASE 2 - CROSSOVER DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1" = 30'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-14	35 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:38 AM

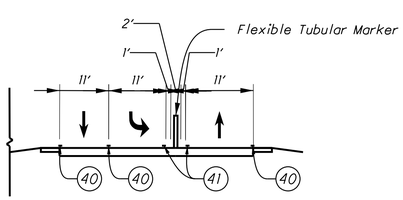
△1 09/25/12 - Miscellaneous revisions





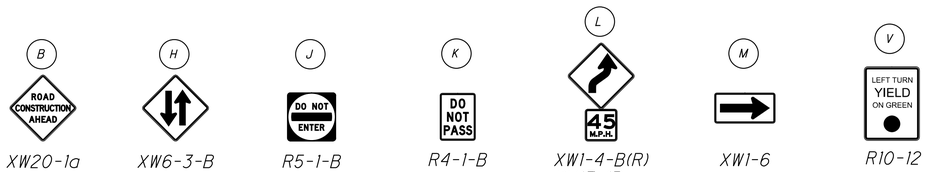
S.R. 37 Northbound

SECTION B-B



S.R. 37 Northbound

SECTION C-C



Area under construction

Existing Traffic Signal Head

Temporary Traffic Signal Head

Bagged Signal Head

(3) Temp. Pavement Marking, Removable, 8 in., White

(4) Temp. Pavement Marking, Removable, 8 in., Yellow

(40) Temp. Pavement Marking, Removable, 4 in., White

(41) Temp. Pavement Marking, Removable, 4 in., Yellow

(45) Temp. Pavement Marking, Removable, 24 in., White

Direction of Traffic

• • • Flexible Tubular Markers (50' Spa.)

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/16/2012 DATE

DESIGNED: MDO DRAWN: KCH

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

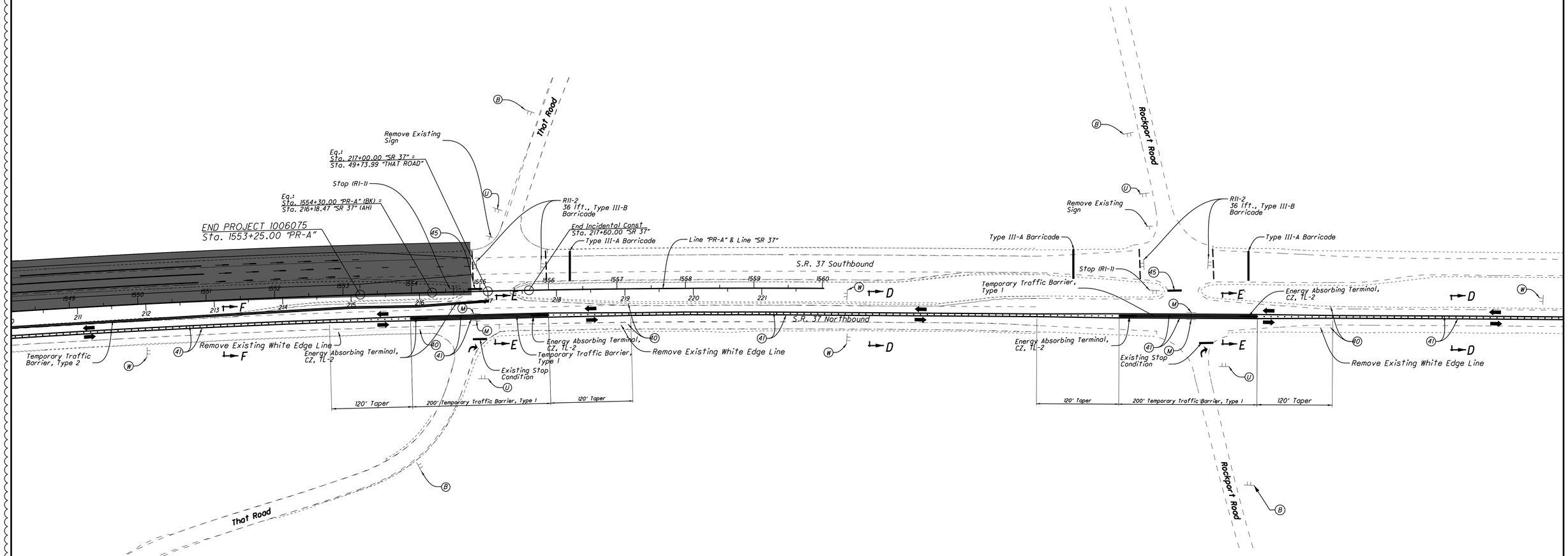
MAINTENANCE OF TRAFFIC
PHASE 2 - INTERSECTION DETAILS

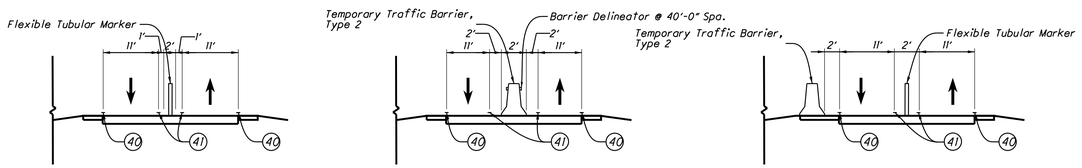
HORIZONTAL SCALE	BRIDGE FILE
1" = 40'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

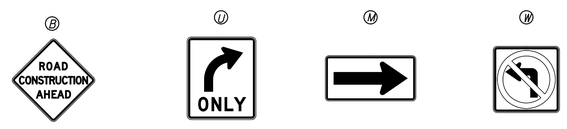
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-15	36 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:39 AM

1 09/25/12 - Miscellaneous revisions







Area under construction

(40) Temp. Pavement Marking, Removable, 4 in., White

(41) Temp. Pavement Marking, Removable, 24 in., White

(45) Temp. Pavement Marking, Removable, 24 in., White

Direction of Traffic

• • • Flexible Tubular Markers (50' Spa.)

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

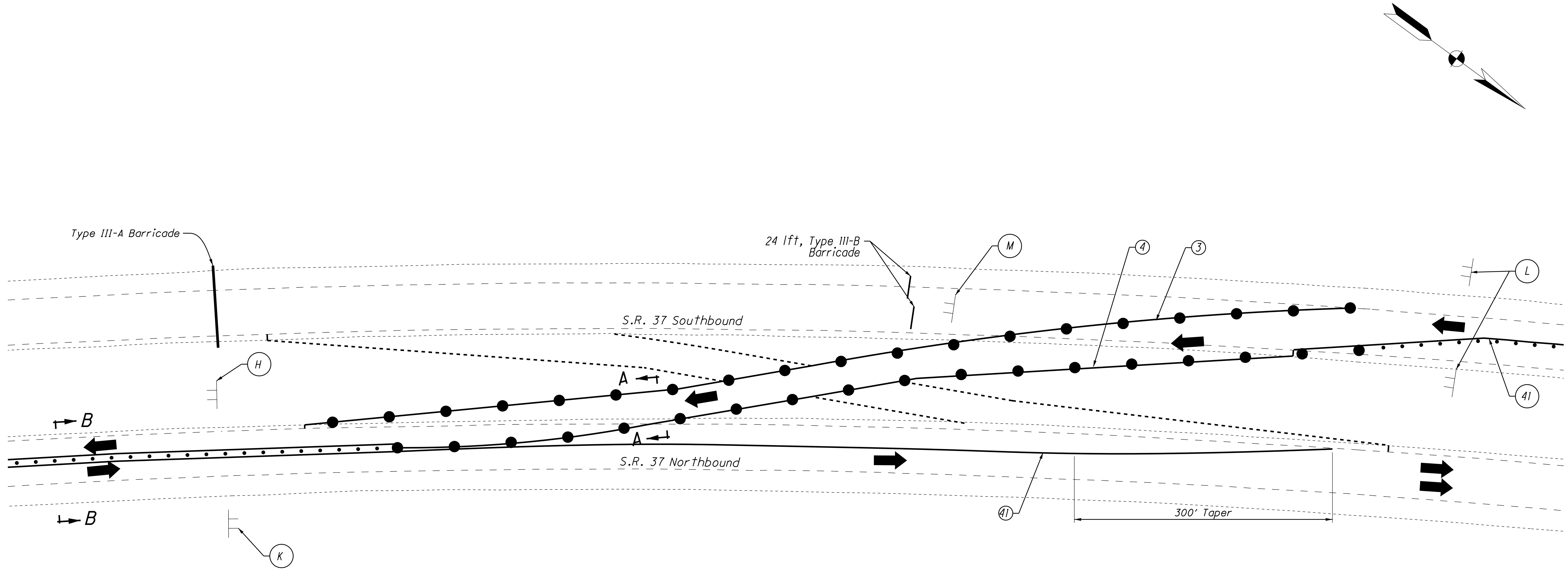
MAINTENANCE OF TRAFFIC
PHASE 2 - INTERSECTION DETAILS

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

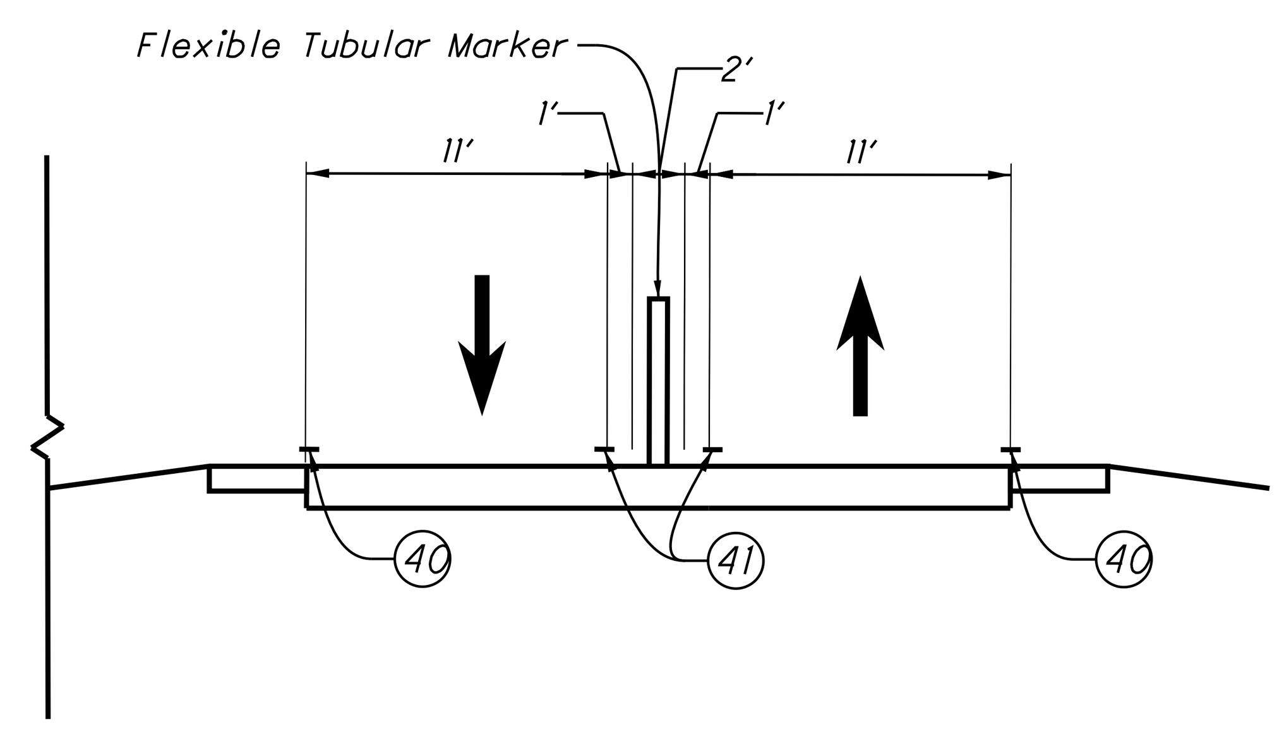
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-16	37 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:40 AM

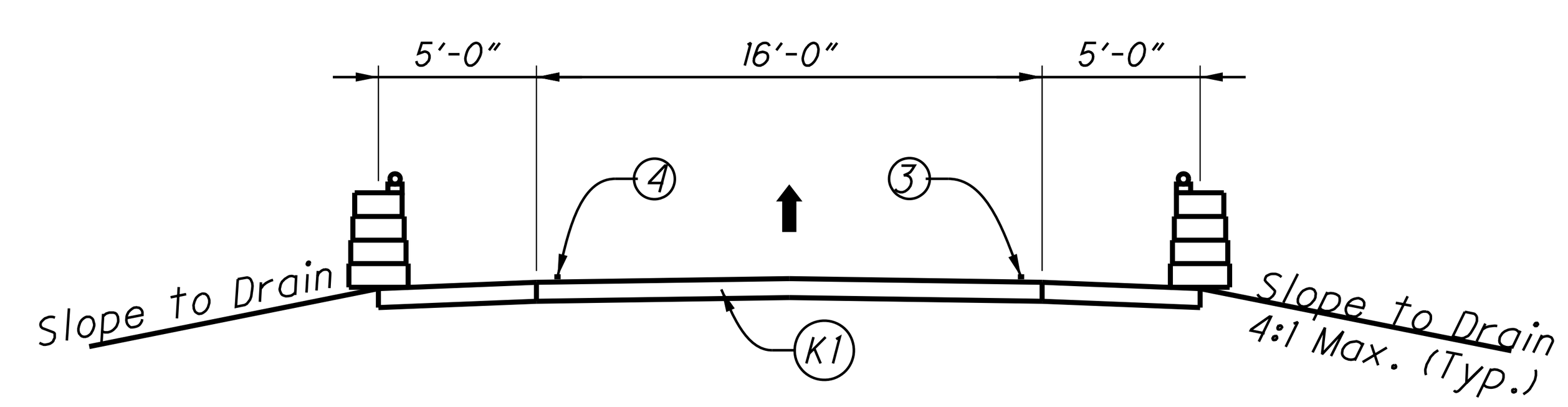
1 09/25/12 - Miscellaneous revisions



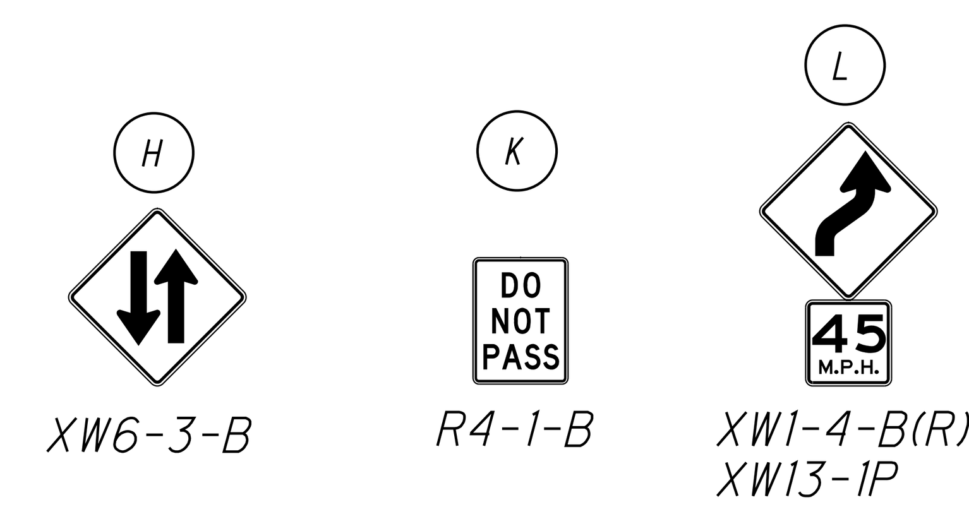
NORTH TEMPORARY CROSSOVER DETAIL



SECTION B-B



SECTION "A-A"



(3)	Temp. Pavement Marking, Removable, 8 in., White
(4)	Temp. Pavement Marking, Removable, 8 in., Yellow
(40)	Temp. Pavement Marking, Removable, 4 in., White
(41)	Temp. Pavement Marking, Removable, 4 in., Yellow
(45)	Temp. Pavement Marking, Removable, 24 in., White
➡	Direction of Traffic
• • •	Flexible Tubular Markers (50' Spa.)
●	Construction Barrel
(K1)	165 lb/yd2 HMA, Type B, Surface, on 275 lb/yd2 HMA, Type B, Intermediate, on 660 lb/yd2 HMA, Type B, Base, on Subgrade Treatment (Type 1C)

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] DESIGN ENGINEER 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

PHASE 2 - CROSSOVER DETAILS

HORIZONTAL SCALE		BRIDGE FILE
1" = 30'		N/A
VERTICAL SCALE		DESIGNATION
N/A		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-17	38 of 173
CONTRACT		PROJECT
IR-33742		1006075

DATE: 10/1/2012 TIME: 10:41:41 AM

1 09/25/12 - Miscellaneous revisions

Area under construction	Flexible Tubular Markers (50' Spa.)
Existing Traffic Signal Head	Flashing Arrow Board
Temporary Traffic Signal Head	
Bagged Signal Head	

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3

HORIZONTAL SCALE	BRIDGE FILE	
1" = 100'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-18	39 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 11:42:16 AM

⚠1 09/25/12 - Miscellaneous revisions

① 67.5 LFT Temporary Guardrail, W-Beam, 6 ft. 3 in. Spa. w/ 1 Temporary Guardrail Transition, Type TGB and 1 Temporary Guardrail End Treatment, Type OS Req'd

② 1,218.75 LFT Temporary Guardrail, W-Beam, 6 ft. 3 in. Spa. w/ 1 Temporary Guardrail Transition, Type TGB and 1 Temporary Guardrail End Treatment, Type OS Req'd

Area under construction

• • • Flexible Tubular Markers (50' Spa.)

(40) TPM, White, 4 in.

(41) TPM, Yellow, 4 in.

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 9/6/2012
DESIGN ENGINEER DATE

DESIGNED: MDO	DRAWN: KCH
CHECKED: HCF	CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3

HORIZONTAL SCALE	BRIDGE FILE	
1" = 100'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-19	40 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

△1 09/25/12 - Miscellaneous revisions

Area under construction

Flexible Tubular Markers (50' Spa.)

Flashing Arrow Board

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

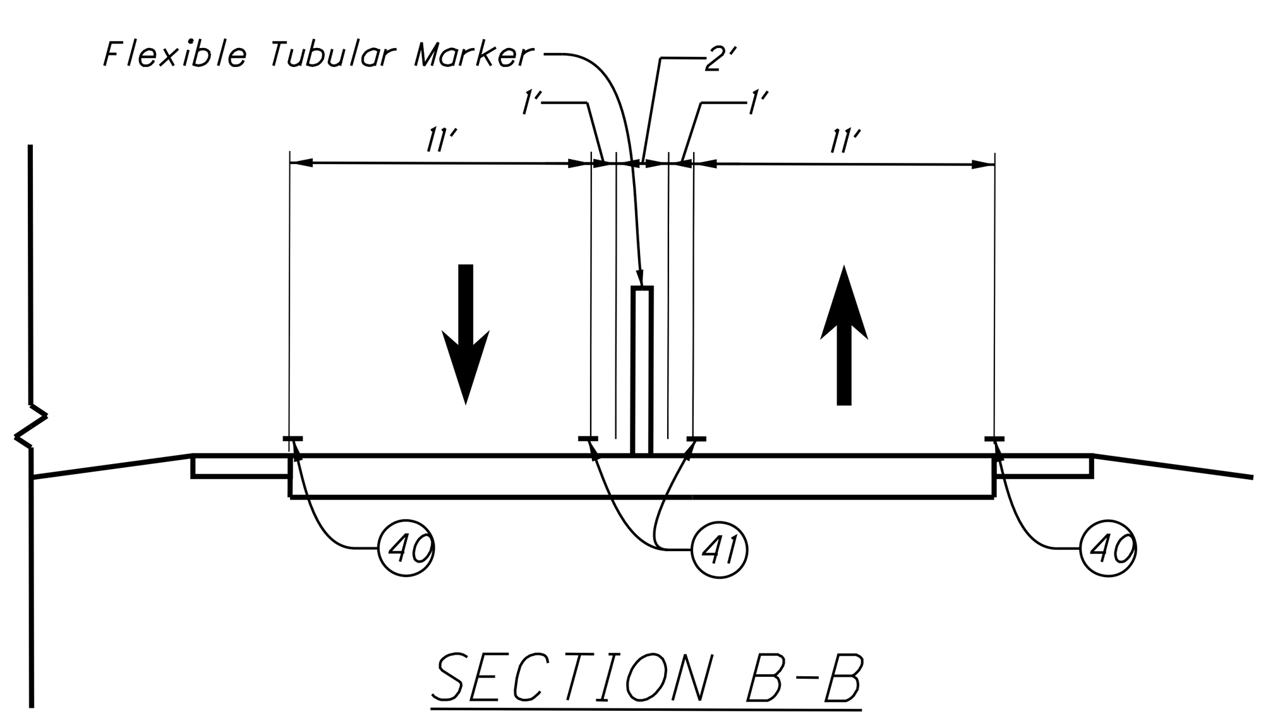
PHASE 3

HORIZONTAL SCALE		BRIDGE FILE
1" = 100'		N/A
VERTICAL SCALE		DESIGNATION
N/A		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-20	41 of 173
CONTRACT		PROJECT
IR-33742		1006075

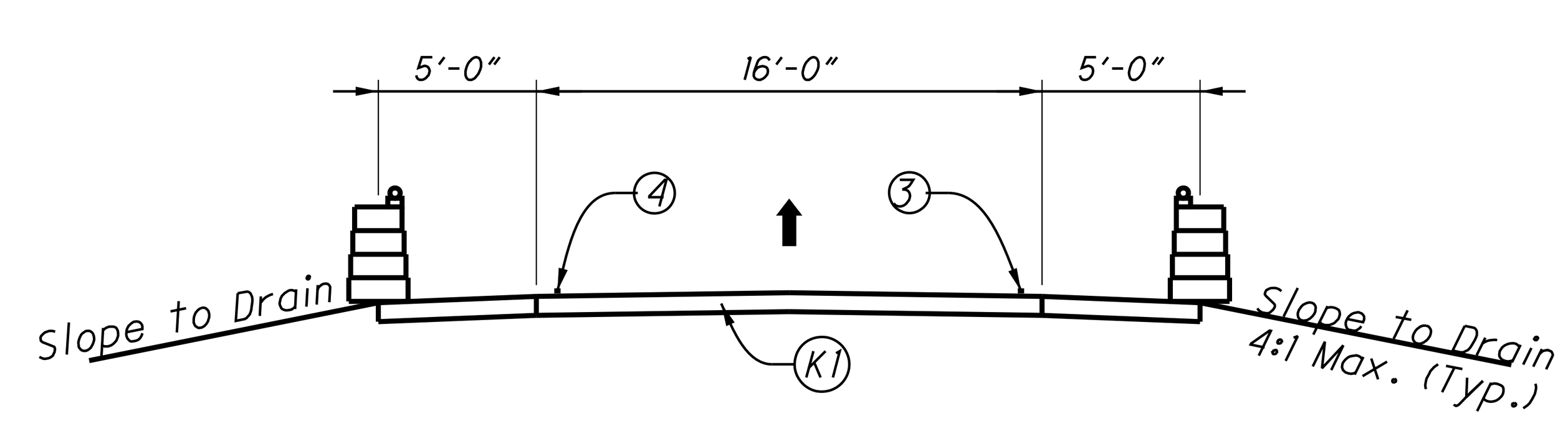
DATE: 10/1/2012
TIME: 11:42:18 AM

1 09/25/12 - Miscellaneous revisions

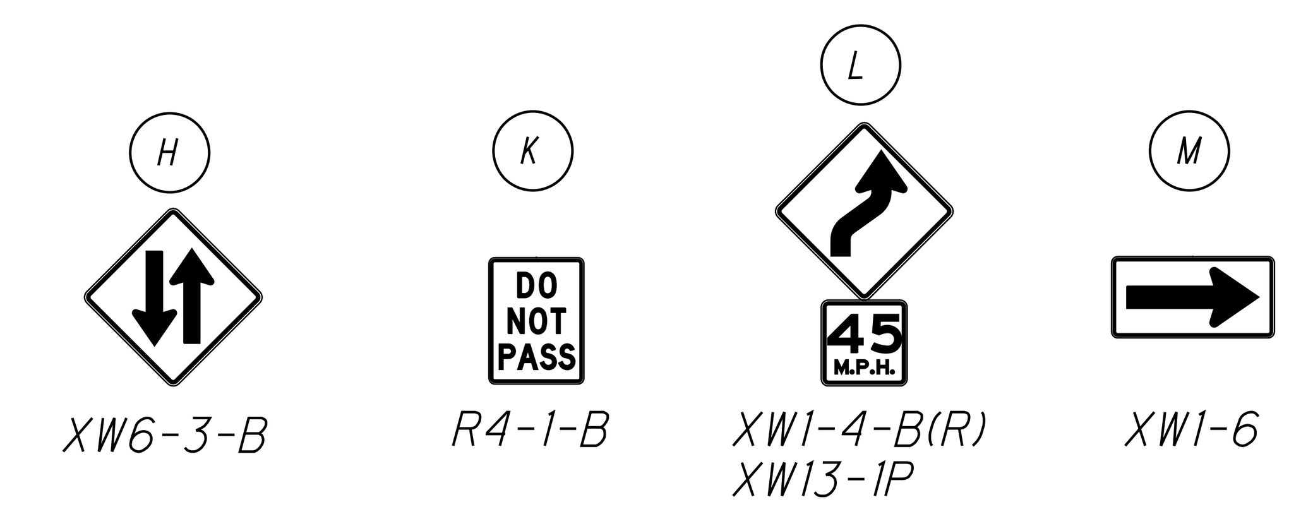
SOUTH TEMPORARY CROSSOVER DETAIL



SECTION B-B



SECTION "A-A"



(3)	Temp. Pavement Marking, Removable, 8 in., White
(4)	Temp. Pavement Marking, Removable, 8 in., Yellow
(40)	Temp. Pavement Marking, Removable, 4 in., White
(41)	Temp. Pavement Marking, Removable, 4 in., Yellow
(45)	Temp. Pavement Marking, Removable, 24 in., White
➡	Direction of Traffic
• • •	Flexible Tubular Markers (50' Spa.)
●	Construction Barrel
(K1)	165 lb/yd2 HMA, Type B, Surface, on 275 lb/yd2 HMA, Type B, Intermediate, on 660 lb/yd2 HMA, Type B, Base, on Subgrade Treatment (Type 1C)

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] DESIGN ENGINEER 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

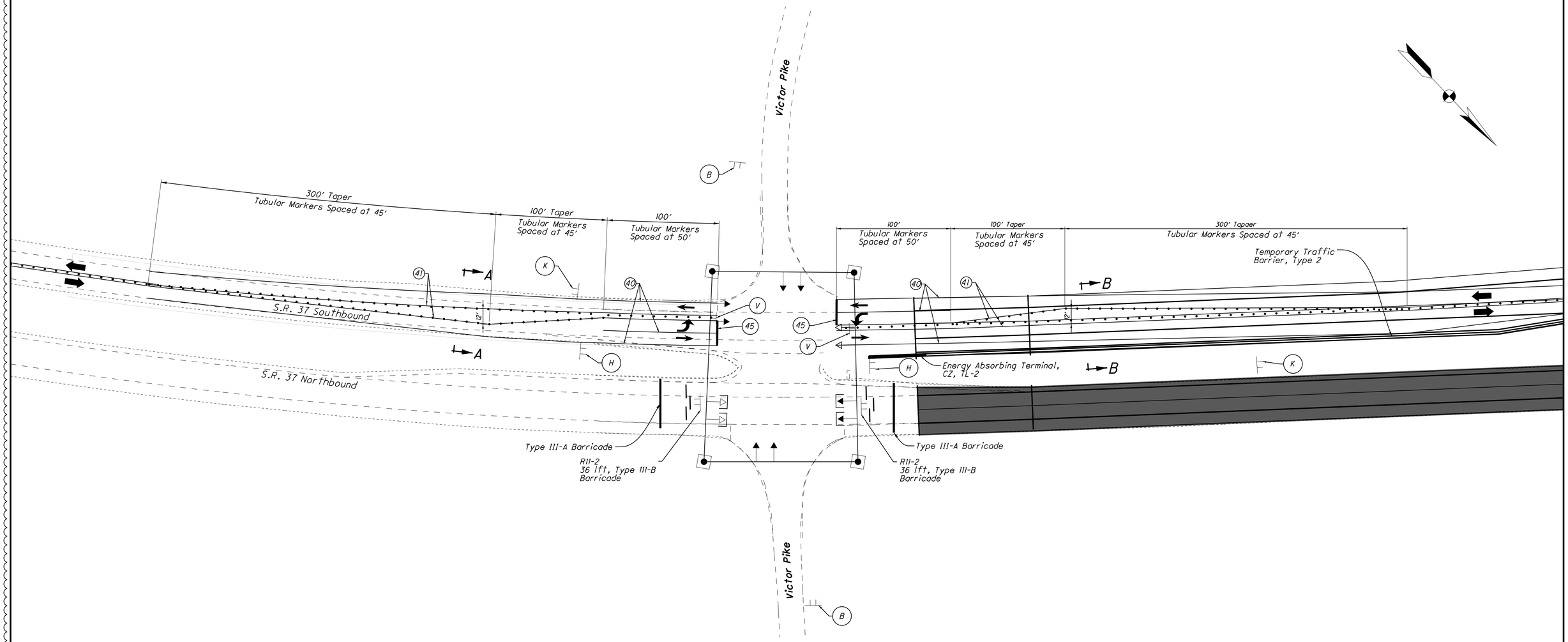
INDIANA DEPARTMENT OF TRANSPORTATION

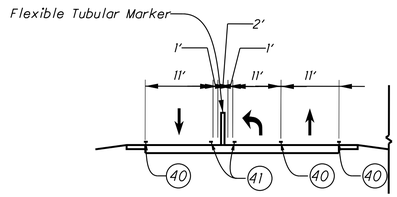
MAINTENANCE OF TRAFFIC
PHASE 3 - CROSSOVER DETAILS

HORIZONTAL SCALE	BRIDGE FILE	
1" = 30'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-21	42 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

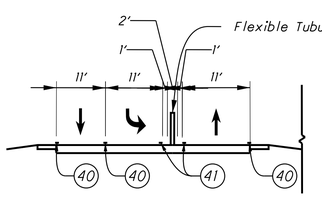
DATE: 10/1/2012 TIME: 10:41:47 AM





S.R. 37 Northbound

SECTION B-B



S.R. 37 Northbound

SECTION C-C

Area under construction

Existing Traffic Signal Head

Temporary Traffic Signal Head

Bagged Signal Head

(3) Temp. Pavement Marking, Removable, 8 in., White
(4) Temp. Pavement Marking, Removable, 8 in., Yellow
(40) Temp. Pavement Marking, Removable, 4 in., White
(41) Temp. Pavement Marking, Removable, 4 in., Yellow
(45) Temp. Pavement Marking, Removable, 24 in., White
Direction of Traffic

• • • Flexible Tubular Markers (50' Spa.)

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3 - INTERSECTION DETAILS

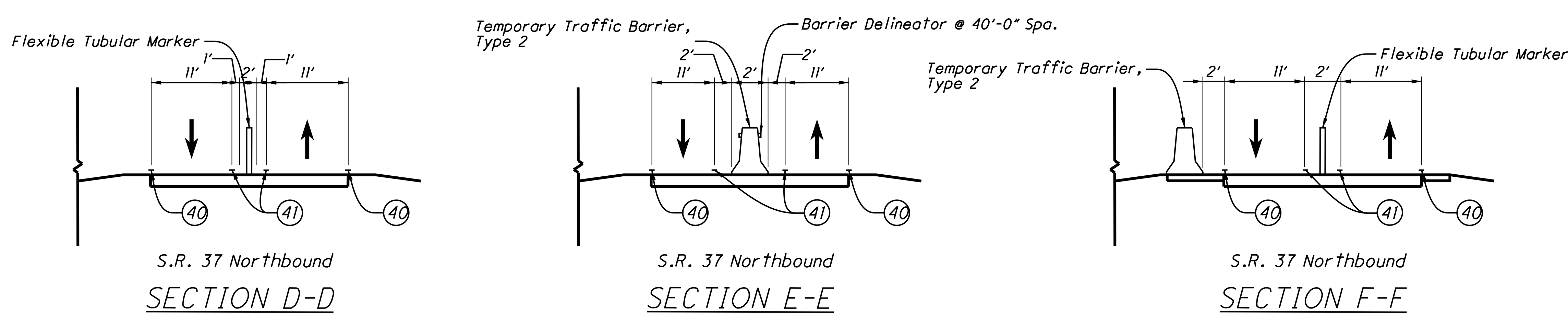
HORIZONTAL SCALE	BRIDGE FILE
1" = 40'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

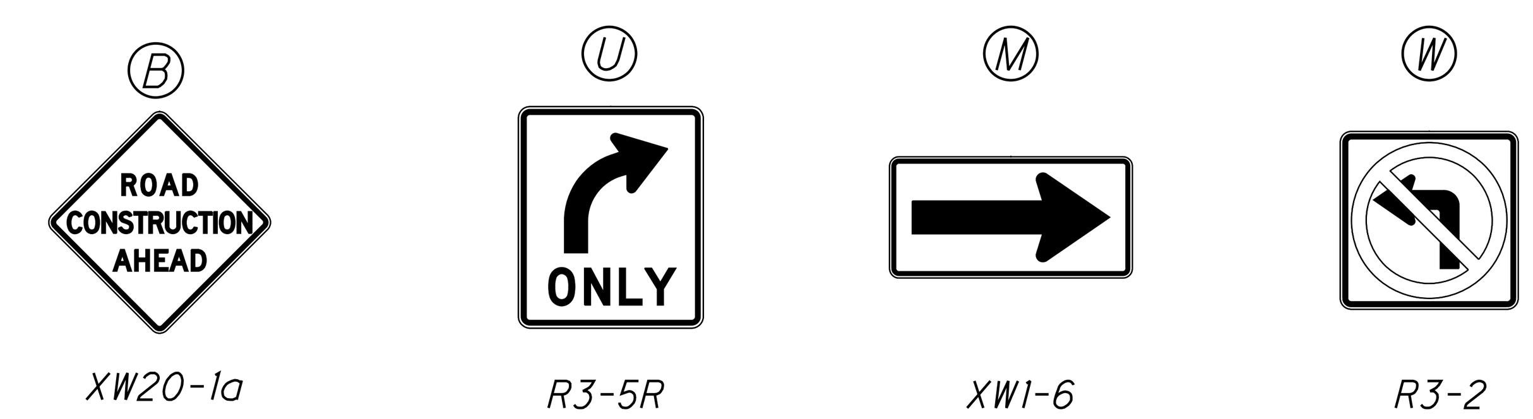
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-22	43 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:48 AM

△1 09/25/12 - Miscellaneous revisions

△1





	Area under construction
40	Temp. Pavement Marking, Removable, 4 in., White
41	Temp. Pavement Marking, Removable, 4 in., Yellow
45	Temp. Pavement Marking, Removable, 24 in., White
➡	Direction of Traffic
· · ·	Flexible Tubular Markers (50' Spa.)

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

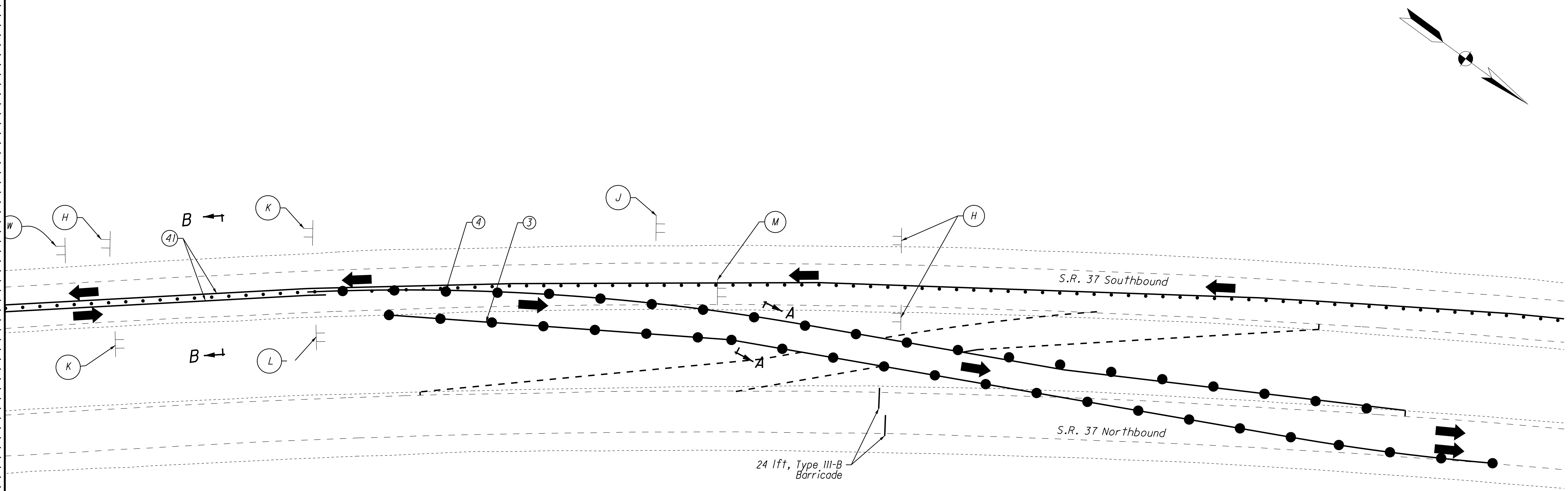
INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3 - INTERSECTION DETAILS

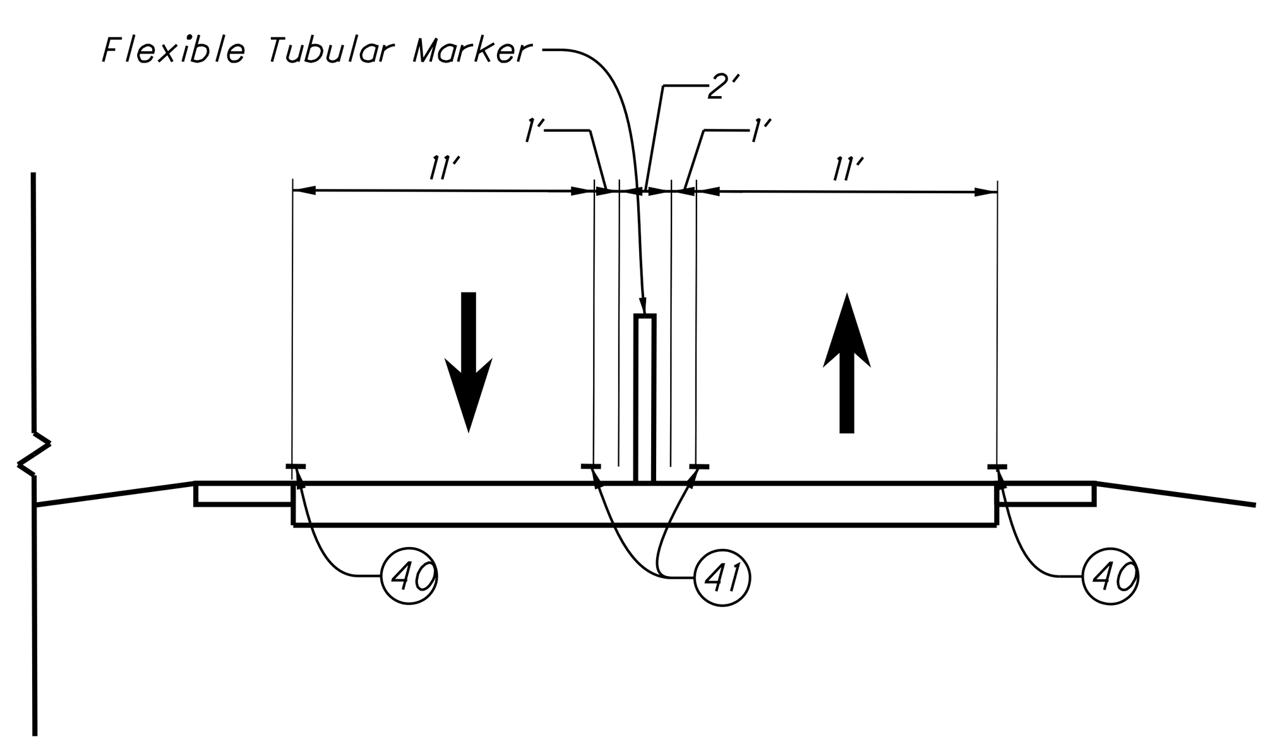
HORIZONTAL SCALE	BRIDGE FILE
1" = 40'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	MS-23 / 44 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/1/2012 TIME: 10:41:48 AM

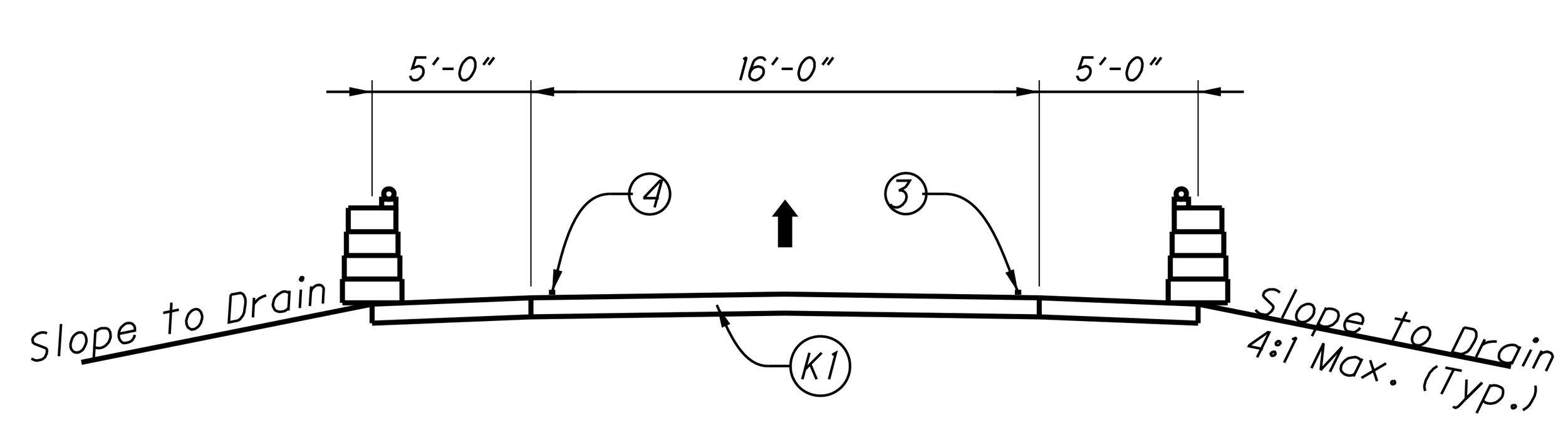
1 09/25/12 - Miscellaneous revisions



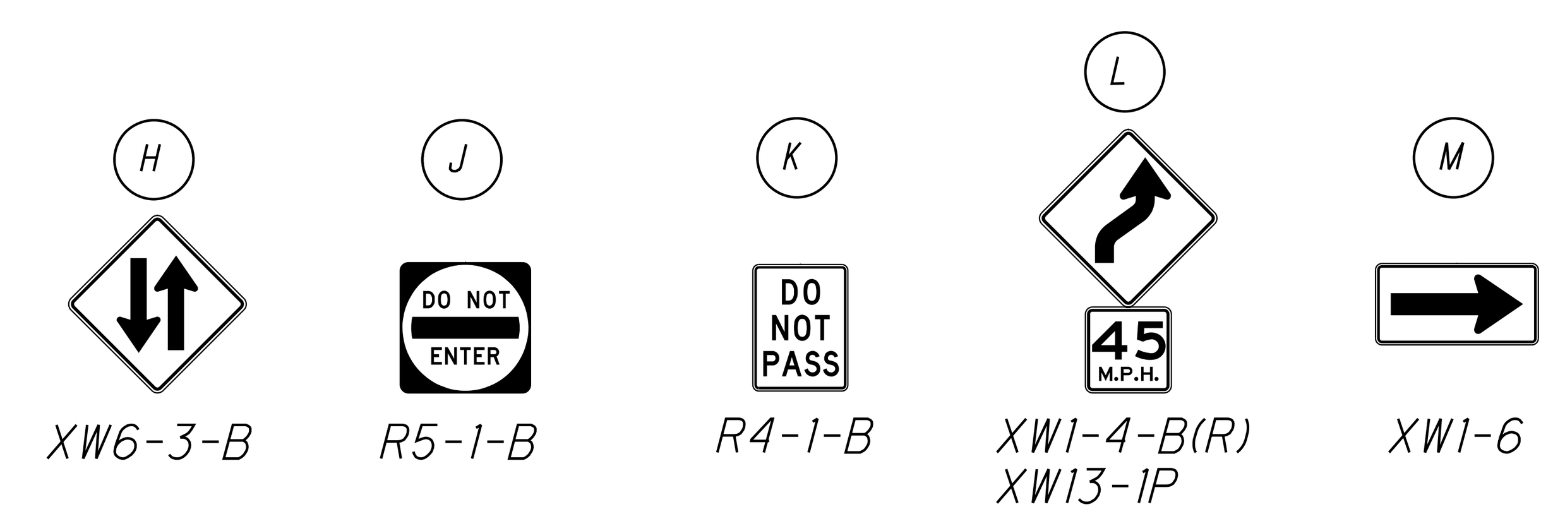
NORTH TEMPORARY CROSSOVER DETAIL



SECTION B-B



SECTION "A-A"



(3)	Temp. Pavement Marking, Removable, 8 in., White	• • •	Flexible Tubular Markers (50' Spa.)
(4)	Temp. Pavement Marking, Removable, 8 in., Yellow	●	Construction Barrel
(40)	Temp. Pavement Marking, Removable, 4 in., White	(K1)	165 lb/yd2 HMA, Type B, Surface, on 275 lb/yd2 HMA, Type B, Intermediate, on 660 lb/yd2 HMA, Type B, Base, on Subgrade Treatment (Type 1C)
(41)	Temp. Pavement Marking, Removable, 4 in., Yellow		
(45)	Temp. Pavement Marking, Removable, 24 in., White		
➡	Direction of Traffic		

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 9/6/2012
DESIGN ENGINEER DATE

DESIGNED: MDO	DRAWN: KCH
CHECKED: HCF	CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3 - CROSSOVER DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	MS-24 / 45 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/1/2012
TIME: 10:41:50 AM

1 09/25/12 - Miscellaneous revisions

Area under construction

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL ______ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 4

HORIZONTAL SCALE		BRIDGE FILE
1" = 100'		N/A
VERTICAL SCALE		DESIGNATION
N/A		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-25	46 of 173
CONTRACT		PROJECT
IR-33742		1006075

DATE: 10/1/2012
TIME: 10:41:51 AM

1 09/25/12 - Miscellaneous revisions

Area under construction

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL 9/6/2012
DESIGN ENGINEER DATE

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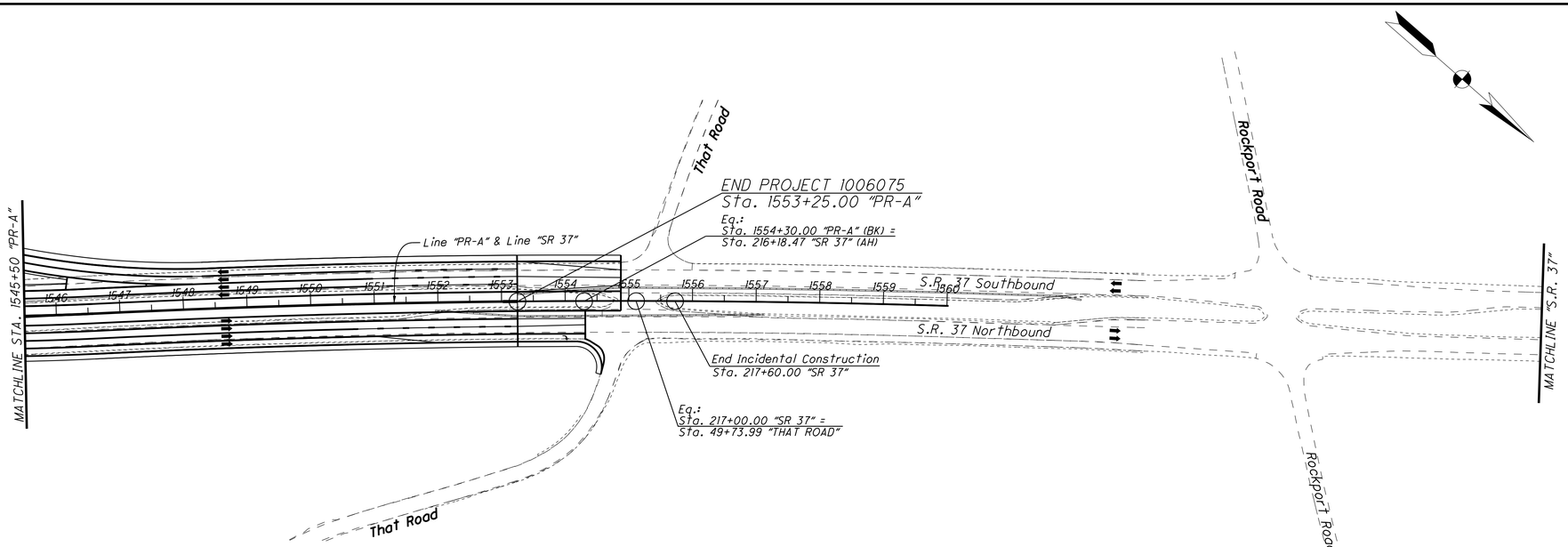
INDIANA
DEPARTMENT OF TRANSPORTATION

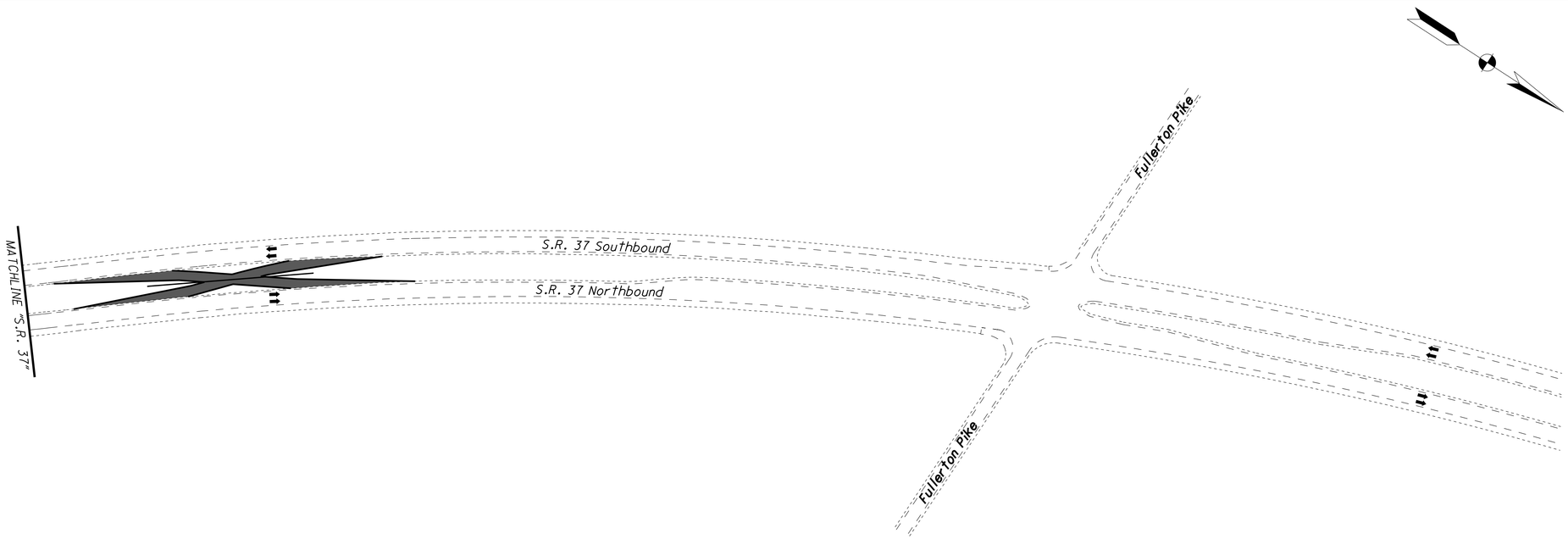
MAINTENANCE OF TRAFFIC
PHASE 4

HORIZONTAL SCALE	BRIDGE FILE	
1" = 100'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-26	47 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:52 AM

1 09/25/12 - Miscellaneous revisions





Area under construction

MARK D. ORTON
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No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

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INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 4

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MS-27	48 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

DATE: 10/1/2012
TIME: 10:41:54 AM

Monument Type "C" Req'd
Sta. 1462+75.21 "A", 259.8' Lt.

Monument Type "C" Req'd
Sta. 1465+35.95 "A", 365.00' Rt. 1

1455 1460 1465 1470

Sec. 31, T-8-N, R-1-W
Perry Township
Monroe County

Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County

Jurisdictional Stream
Unnamed Tributary of
Clear Creek

App. Section Line

CURVE DATA
PI = 1453+51.01 "A"
Δ = 21° 35' 32" (LT)
R = 3,000.00'
T = 572.07'
L = 1,130.57'
E = 54.06'
SE = 6.4%

BARRY & TERRE R. ELKINS
INST. #2006013017

+00, SH No. 4-0427
Sinkhole, 370' LT.
No Treatment
Protect During Constr.

+45, SB No. 4-0431
Spring, 330' LT.
No Treatment
Protect During Constr.

+81
349'

+55
355'

L.A. R/W, A.C.L. & F.F.T.F. w/ GP-1 Posts

+85
294'

L.A. R/W & A.C.L.

240' L.A. R/W, A.C.L. & F.F.T.F. w/ GP-1 Posts

+PT
240'

240' L.A. R/W, A.C.L.
& F.F.T.F. w/ GP-1 Posts

+54
240'

L.A. R/W, A.C.L. & F.F.T.F. w/ GP-1 Posts

BARRY & TERRE R. ELKINS
INST. #2006013017

+25, SB No. 4-0429
Spring, 235' LT.
No Treatment
Protect During Constr.

+45, SB No. 4-0428
Spring, 220' LT.
No Treatment
Protect During Constr.

F.F.T.F. w/
GP-1 Posts

Spill Containment Req'd
(For Details See Sht. 103) 1

BEGIN PROJECT 1006075
END PROJECT 0500450
Sta. 1462+50.00 "A"

Str. 169-53-8708
S.B. I-69 over Unnamed Trib. (UNT) of Clear Creek
Des. No. 1172101

Const. Limits

103 Tons Revetment Riprap
173 Sys Geotextiles Req'd.

Begin F.F.T.F.
+09
67'

End Incidental Construction
Sta. 1462+50.00 "A"

Spill Containment Req'd
(For Details See Sht. 103) 1

Begin Paving Exception
Sta. 1464+50.61 4

End F.F.T.F.
+72
67'

End Paving Exception
Sta. 1468+13.95

Terminal Joint Req'd. (PCCP Option)

Begin Incidental Construction
Sta. 1461+35.00 "A"

+30, SB No. 4-0430
Swallet, 10' RT.
Concrete Cap, Must be completed
prior to earth disturbance
from Contract #IR-33741

30 Tons Revetment Riprap
18 Sys Geotextiles Req'd.

PT Sta. 1459+09.50 "A"

App. B

55 1456 1457 1458 1459 1460 1461 1462 1463 1464 1465 1466 1467 1468 1469 1470

I-69 Southbound

24.0'

Curb w/
Riprap Turnout

Terminal Joint Req'd. (PCCP Option)

N 23° 00' 48" E

I-69 Northbound

30.0'

Line "A"

30 Tons Revetment Riprap
18 Sys Geotextiles Req'd.

Terminal Joint Req'd. (PCCP Option)

24.0'

30 Tons Revetment Riprap
35 Sys Geotextiles Req'd.

+58.83
+62.90

12'

Curb w/ Riprap Turnout
End Paving Exception
Sta. 1467+81.39

Terminal Joint Req'd. (PCCP Option)

+00, Str. 909
Inlet Type, N-12 w/
78' of 18" Pipe and
1 P.E.S. Req'd

End F.F.T.F.
+23
67'

Begin Paving Exception
Sta. 1464+18.05

Begin F.F.T.F.
+60
67'

+00, Str. 910
Inlet Type, N-12 w/
78' of 18" Pipe and
1 P.E.S. Req'd

+30, SB No. 4-1520
Spring Box, 45' RT.
64' of 12" Pipe w/
1 P.E.S. Req'd

Str. 169-53-9707
N.B. I-69 over Unnamed Trib. (UNT) of Clear Creek
Des. No. 1172100

175' L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

175' L.A. R/W, A.C.L.
& F.F.T.F. w/ GP-1 Posts

+PT
175'

+57
175'

L.A. R/W, A.C.L.
& F.F.T.F. w/ GP-1 Posts

96 Tons Revetment Riprap
161 Sys Geotextiles Req'd.

F.F.T.F. w/
GP-1 Posts

Spill Containment Req'd
(For Details See Sht. 103) 1

Spill Containment Req'd
(For Details See Sht. 103) 1

Const. Limits

Wildlife
Crossing

App. Section Line

MARK & YVONNE FREEMAN
INST. #200006578

BARRY & TERRE R. ELKINS
INST. #2006013017

BARRY & TERRE R. ELKINS
INST. #2006013017

F.F.T.F. w/
GP-1 Posts

F.F.T.F. w/
GP-1 Posts 1

App. E

Sec. 31, T-8-N, R-1-W
Perry Township
Monroe County

Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County

+10, SB No. 4-0164
Spring, 280' RT.
No Treatment
Protect During Constr.

365' L.A. R/W, A.C.L. & F.F.T.F.
w/ GP-1 Posts

365' L.A. R/W, A.C.L. & F.F.T.F.
w/ GP-1 Posts

365' L.A. R/W & A.C.L.

+57
365'

+50
365'

+05
365'

MATCH LINE STA. 1470+50

Note:
All R/W on this sheet to be as shown.

All R/W on this sheet described from
Line "A" except as noted.

Line "A" to be constructed.

LEGEND

B - Begin L.A. R/W
E - End L.A. R/W
SH Sinkhole
SW Swallet
SPR Spring
Do Not Disturb Trees
See TY-07 for Curb and Riprap Turnout Details.
Z See Typical Sections for Construction Materials

For Sinkhole Treatment Details See Sheet 100.
For Spring Box Details See Sheet 103.

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STATE OF INDIANA
PROFESSIONAL ENGINEER

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DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 1455+00 TO STA. 1470+50 "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-01	51 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

EARTHWORK BALANCE	
Unclassified Excavation (Cys) =	940,113
Fill + 5% (Cys) =	905,025
Waste (Cys) =	35,088

The above balance includes the following:

	Unclassified Exc. (Cys)	Fill + 5% (Cys)
Line "NER-3" =	244,448	2
Line "NWR-3" =	271,718	71,789
Line "SEL-3" =	116,007	14,857
Line "SER-3" =	45,152	12,761
Line "Bolin Lane" =	1,819	0

Glenview Drive earthwork is included in mainline I-69 quantities.
The above Earthwork Balance does not include benching.

1. 389 Tons Ditch Class II Riprap, over 346 Sys Geotextile with 188 Sys Ditch Sodding Req'd. Rt.
2. 517 Tons Ditch Revetment Riprap, over 667 Sys Geotextile with 250 Sys Ditch Sodding Req'd. Rt.
3. 522 Tons Ditch Class II Riprap, over 465 Sys Geotextile with 253 Sys Ditch Sodding Req'd. Lt.
4. 201 Sys Ditch Sodding Req'd. Lt.
5. 383 Tons Ditch Class I Riprap, over 398 Sys Geotextile with 186 Sys Ditch Sodding Req'd. Lt.
6. 479 Sys Median Ditch Sodding Req'd.
7. 631 Sys Median Ditch Sodding Req'd.

- (A) Guardrail End Treatment, Type MS
- (B) Guardrail End Treatment, Type OS
- (C) Guardrail Transition Type TGB

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INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1455+00 TO STA. 1470+50 "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-01	52 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:41:57 AM
LOCATION: R:\05141 - I-69 Section 4\Microstation\Sheet Files\2562750ORD_PS01_A2.dgn

09/25/12 - Miscellaneous revisions

Monument Type "C" Req'd
P.C. Sta. 1471+42.94 "A"

Monument Type "C" Req'd
Sta. 1476+50.00 "A", 395.6' Rt.

Monument Type "C" Req'd
Sta. 1478+71.54 "A", 290.0' Rt.

Monument Type "D" Req'd
P.I. Sta. 1478+85.59 "A", 34.4' Lt.

1475
1480
1485
Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County
BARRY & TERRE R. ELKINS
INST. #2006013017
JASON MATTHEW WITHROW
& GEORGE HUTTON
INST. #2011002036
+45, SH No. 4-0088
Sinkhole, 390' Lt.
No Treatment
Protect During Const.
+15, SB No. 4-0089
Cave, 330' Lt.
No Treatment
Protect During Const.
L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts
245' L.A. R/W, A.C.L. & F.F.T.F. w/ GP-1 Posts
300' L.A. R/W, A.C.L. & F.F.T.F. w/ GP-1 Posts
Eq.: L.A. R/W, A.C.L. & F.F.T.F. w/ GP-1 Posts
POC Sta. 1483+90.06 "A" =
POT Sta. 6+76.58 "PR-T-134"
Do Not Disturb
Existing Wetland Area
+40, SB No. 4-0098
Sinking Stream, 45' Lt.
Aggregate Cap
Geomembrane Ditch
Extend Granular Backfill
Within Existing Channel Per
Details. See Special Channel
Fill Detail this page and
Const Sequence in Spec Prov.
+75, SH No. 4-0097
Sinkhole, 170' Lt.
Aggregate Cap
Geomembrane Ditch
+90, Str. No. 134 (I-69-53-9709)
I-69 over Unnamed Tributary of
Clear Creek
550' of 28' x 10' Precast 3-Sided Arch
Des. No. 1172102
Const. Limits
+00, Str. 911
Inlet Type, N-12 w/
78' of 18" Pipe and
1 P.E.S. Req'd
+00, Str. 912
Inlet Type, N-12 w/
100' of 18" Pipe and
1 P.E.S. Req'd
+00, Str. 913
Inlet Type, N-12 w/
78' of 18" Pipe and
1 P.E.S. Req'd
6 Tons Revetment Riprap
8 Sys Geotextiles Req'd.
7 Tons Revetment Riprap
8 Sys Geotextiles Req'd.
PI Sta. 1478+85.59 "A"
Δ = 10° 36' 26" (RT)
Special Fill Req'd
See Special Channel
Fill Detail this page
and Const Sequence per
Special Provision
I-69 Southbound
I-69 Northbound
Line "A"
N 23° 00' 48" E
N 33° 37' 14" E
MATCH LINE STA. 1470+50
MATCH LINE STA. 1485+50
+60, SH No. 4-0100
Sinkhole, 25' Rt.
Concrete Cap
PC Sta. 1471+42.94 "A"
Visual Tree Screen Required
Sta. 1474+00 to Sta. 1493+00 "A"
Jurisdictional Stream
Unnamed Tributary of
Clear Creek
+30, SH No. 4-0099
Sinkhole, 130' Rt.
Aggregate Cap
Geomembrane Ditch
PI Sta. 14+10.15
"PR-T-134"
PC Sta. 13+71.40
"PR-T-134"
PC Sta. 9+50.17
"PR-T-134"
PT Sta. 10+34.26
"PR-T-134"
PT Sta. 14+45.33
"PR-T-134"
POT Sta. 14+75.58 "PR-T-134"
PI Sta. 9+94.88
"PR-T-134"
F.F.T.F. w/
GP-1 Posts
Flow
Wildlife
Crossing
App. 1/4 Section Line
and App. ℄
290' L.A. R/W & A.C.L.
L.A. R/W & A.C.L.
365' L.A. R/W & A.C.L.
1/4 Sec. Line
W. TOBACCO RD.
Ex. R/W
Line "PR-T-134"
Detention
Basin Req'd
ROLLING GLEN SUBDIVISION PHASE 3
PLAT CABINET C, ENVELOPE 339
290' L.A. R/W, A.C.L. &
F.F.T.F. w/ GP-1 Posts
L.A. R/W,
A.C.L. & F.F.T.F.
W/GP-1 Posts
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
LOT 34
CURVE DATA
PI = 1478+85.59 "A"
Δ = 10° 36' 26" (RT)
R = 8,000.00'
T = 742.65'
L = 1,481.05'
E = 34.40'
S.E. = 2.7%
CURVE DATA
PI = 4+92.15 "PR-2-G"
Δ = 42° 34' 17" (RT)
R = 250.00'
T = 97.40'
L = 185.75'
E = 18.30'
SE = N.C.
CURVE DATA
PI = 4+92.15 "PR-G"
Δ = 42° 34' 17" (RT)
R = 380.00'
T = 148.05'
L = 282.34'
E = 27.82'
SE = N.C.
CURVE DATA
PI = 9+94.88 "PR-T-134"
Δ = 48° 10' 42" (RT)
R = 100.00'
T = 44.71'
L = 84.09'
E = 9.54'
Line "Glenview Drive"
Begin Construction
Sta. 2+00.00 "PR-2-G"
NOTE:
Line "PR-G" = Line "PR-GLENVIEW DRIVE"
Line "PR-2-G" = Line "PR-2-GLENVIEW DRIVE"
- Roadway Removal
Top of Bank to Top of Bank
No Stump or
Root Removal
Geotextile
Existing Ground
Course Aggregate Fill

SPECIAL CHANNEL FILL DETAIL
To Be Completed Prior to Embankment Fill

Note:
All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "A" to be constructed.

LEGEND

- SH Sinkhole
- SS Sinking Stream
- CV Cave
- Do Not Disturb Trees
- Z See Typical Sections for Construction Materials

For Sinkhole Treatment Details See Sheet 100.
For Spring Box Details See Sheet 103
For Visual Tree Screening Details See Sheet 16.
For Stream Mitigation See Sheet 99 & 132.
For Construction Sequencing requirements for stream mitigation & Str. 134 Construction. See Special Provisions

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

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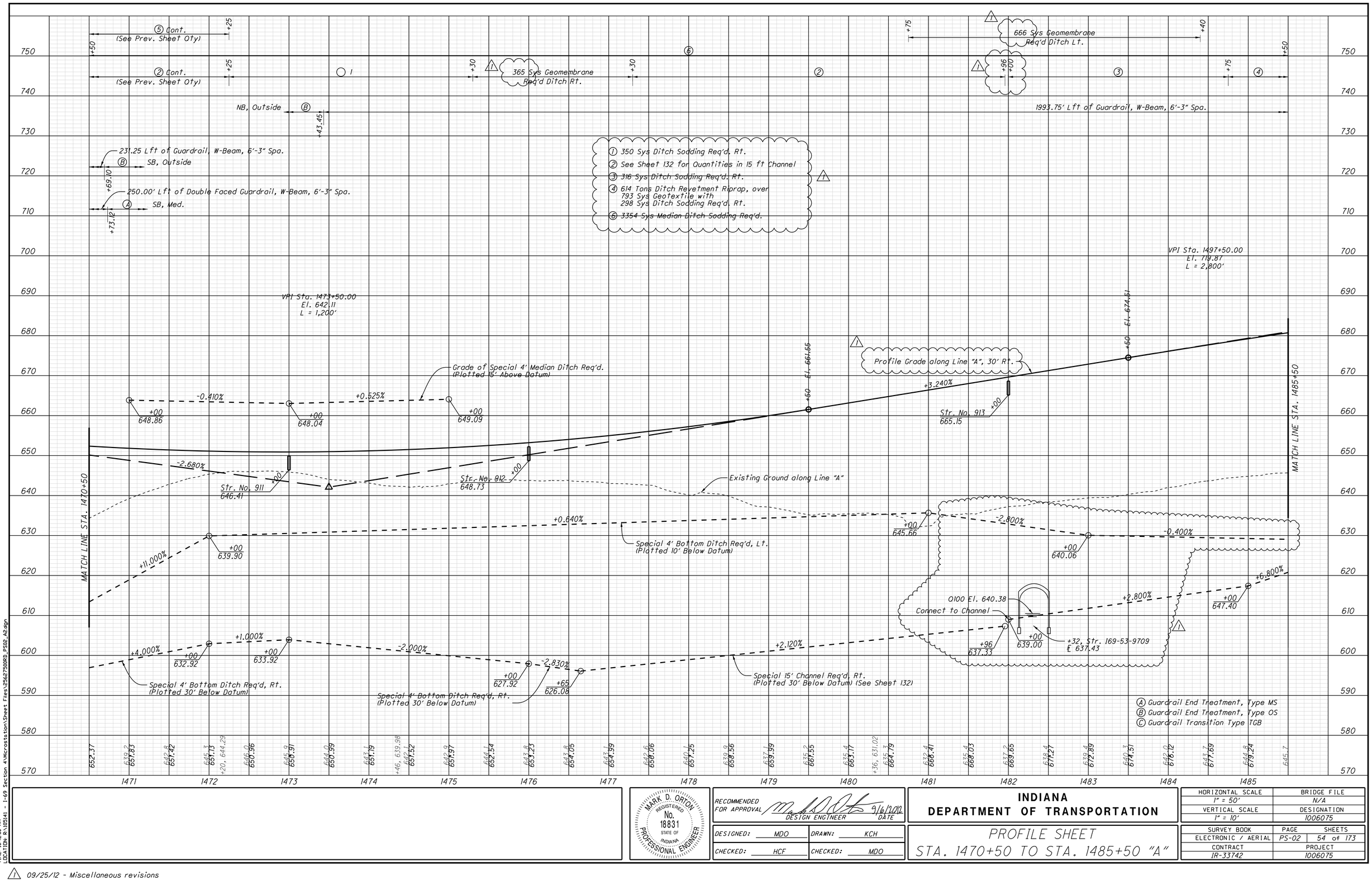
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 1470+50 TO STA. 1485+50 "A"

HORIZONTAL SCALE		BRIDGE FILE
1" = 50'		N/A
VERTICAL SCALE		DESIGNATION
NONE		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-02	53 of 173
CONTRACT		PROJECT
IR-33742		1006075

1 09/25/12 - Miscellaneous revisions



DATE: 10/1/2012
TIME: 10:42:00 AM
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CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET

STA. 1470+50 TO STA. 1485+50 "A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-02	54 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

Monument Type "C" Req'd
P.T. Sta. 1486+23.99 "A"

Monument Type "C" Req'd
P.C. Sta. 1494+13.78 "A"

Monument Type "C" Req'd
P.C. Sta. 1495+09.39 "PR-A"

BRIDGE RIPRAP DRAINAGE TURNOUT QUANTITIES	NB, Bent No. 1	SB, Bent No. 1
Revetment Riprap	112 Tons	92 Tons
Geotextiles	150 Syd	128 Syd
Sodding	38 Syd	36 Syd

Note:
All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "A" to be constructed to Sta. 1494+13.78, and then Line "PR-A" to be constructed.

LEGEND

- B - Begin L.A. R/W
- E - End L.A. R/W
- SH Sinkhole
- SPR Spring
- Z See Typical Sections for Construction Materials

For Sinkhole Treatment Details See Sheet 100.
For Spring Box Details See Sheet 103.
For Visual Tree Screening Details, See Sheet 16.

PR-G = PR-Glenview Drive
PR-2-G = PR-2-Glenview Drive

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INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 1485+50 "A" TO STA. 1500+50 "PR-A"

HORIZONTAL SCALE		BRIDGE FILE
1" = 50'		N/A
VERTICAL SCALE		DESIGNATION
NONE		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-03	55 of 173
CONTRACT		PROJECT
IR-33742		1006075

1 09/25/12 - Miscellaneous revisions

NB, Med. Ⓐ 250.00' Lft of Double Faced Guardrail, Ⓒ +60.85 Ⓒ +10.85 +35.85 +85.66 Ⓒ +10.66 231.25' Lft of Guardrail, W-Beam, 6'-3" Spa. Ⓑ +41.91 SB, Outside

Curved Terminal End Req'd. 75' Lft of Guardrail, W-Beam, 6'-3" Spa. NB, Outside Ⓑ +50 +25 ⚠1

1993.75' Lft of Guardrail, W-Beam, 6'-3" Spa.

Ⓒ +37.20 +62.20 Ⓒ +12.00 +37.00 250.00' Lft of Double Faced Guardrail, W-Beam, 6'-3" Spa. +87.00 Ⓐ SB, Med.

VPI Sta. 1497+50.00
El. 719.87
L = 2,800'

SB Lanes Paving Exception +76.62 +13.10

NB Lanes Paving Exception +34.75 +71.24

Str. No. 169-53-9710
Des. No. 1172104
NB I-69 o/ Bolin Lane

Str. No. 169-53-9711
Des. No. 1172105
SB I-69 o/ Bolin Lane

+3.240% -0.080%

Profile Grade along Line "A", 30' Rt. ⚠1

Profile Grade along Line "PR-A", 30' Rt. ⚠1

Str. No. 916 +00 699.42

Eq.:
PC Sta. 1494+13.78 "A" (Back) =
POT Sta. 1494+13.78 "PR-A" (Ahead)

Str. No. 918 +50 707.95

Existing Ground along Line "PR-A"

MATCH LINE STA. 1500+50

17'-4½" Min. Vert. Cl.

Str. No. 914 +00 683.29

Existing Ground along Line "A"

+45, Median Earthen Berm Req'd. (See Sheet 16 for Details)

+50, SB No. 4-0085

+8.400%

-0.400% +00 701.05

+15 701.39

Special 4' Bottom Ditch Req'd, Median (Platted 30' Below Datum)

Special 4' Bottom Ditch Req'd, Lt. (Plotted 10' Below Datum)

-1.200%

+00 677.36

Str. 917
Pipe Invert El. 670.77

+20 674.12

Str. 975
Pipe Invert El. 674.22

MATCH LINE STA. 1485+50

+8.400%

Str. 915

-0.600%

-1.700%

+00 698.75

+00 696.95

Special 4' Bottom Ditch Req'd, Lt. (Plotted 10' Below Datum)

+3.040%

+50 651.75

+10 653.00

Special 4' Bottom Ditch Req'd, Rt. (Plotted 50' Below Datum)

+9.000%

+00 638.86

-0.400% +0.490%

+2.400%

+00 644.15

+00 639.35

Connect to Channel

+61, Str. 169-53-9709
℄ 638.48

+00 667.80

+4.362%

+85 676.87

Connect to Line "PR-GLENVIEW DRIVE" Ditch Lt.

Special 4' Bottom Ditch Req'd, Rt. (Plotted 50' Below Datum)

+6.800%

Str. 935
Pipe Invert El. 661.00

+00 684.00

-0.800%

+25 683.00

Str. 917
Pipe Invert El. 682.50

⚠1

① 201 Tons Ditch Revetment Riprap, over 260 Sys Geotextile with 98 Sys Ditch Sodding Req'd. Rt.
② 161 Sys Ditch Sodding Req'd. Rt.
③ 201 Sys Ditch Sodding Req'd. Lt.
④ 316 Tons Ditch Revetment Riprap, over 408 Sys Geotextile with 153 Sys Ditch Sodding Req'd. Lt.
⑤ 333 Tons Ditch Revetment Riprap, over 430 Sys Geotextile with 162 Sys Ditch Sodding Req'd. Lt.
⑥ 58 Sys Ditch Sodding Req'd. Lt.
⑦ 402 Tons Ditch Revetment Riprap, over 519 Sys Geotextile with 195 Sys Ditch Sodding Req'd. Lt.
⑧ 1755 Sys Median Ditch Sodding Req'd.
⑨ 1424 Sys Median Ditch Sodding Req'd.

365 Sys Geomembrane Req'd Ditch Lt. ⚠1

+00 +75 ③ ④ +50 +10 ⑤ +00 +50 ⑥ ⑦ +50

⑧ +50 +35 +13 ⑨ +50

④ Cont. (See Prev. Sheet Qty) +10 +25 ① +00 +00 ② +50

Ⓐ Guardrail End Treatment, Type MS
Ⓑ Guardrail End Treatment, Type OS
Ⓒ Guardrail Transition Type TGB

680.75 682.24 683.10 685.12 688.52 689.87 690.54 691.82 693.07 694.29 695.48 696.54 697.71 698.87 699.94 700.98 701.99 702.98 703.93 704.85 705.75 706.61 707.45 708.26 +60, 693.46 709.03 709.77 710.49 711.17 711.83 690.6

1486 1487 1488 1489 1490 1491 1492 1493 1494 1495 1496 1497 1498 1499 1500

570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1485+50 "A" TO STA. 1500+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-03	56 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE 10/1/2012
TIME 1042:03 AM
LOCATION R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275GRD_PS03_A2.dgn

⚠1 09/25/12 - Miscellaneous revisions

Monument Type "C" Req'd
P.O.C. Sta. 1504+00.00 "PR-A"

Monument Type "C" Req'd
P.O.C. Sta. 1514+00.00 "PR-A"

1505 1510 1515

CURVE DATA
PI = 1525+66.33 "PR-A"
Δ = 77° 37' 50" (LT)
R = 3,800.00'
T = 3,056.94'
L = 5,148.65'
E = 1,076.98'
S.E. = 5.2%

CURVE DATA
PI = 1522+94.22 "A"
Δ = 71° 30' 58" (LT)
R = 4,000.00'
T = 2,880.44'
L = 4,992.77'
E = 929.19'

Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County

MARY MABEL ELLIS HANE
DEED BOOK 269, PAGE 265

Jurisdictional Stream
Unnamed Tributary
of Clear Creek

MARY MABEL ELLIS HANE
DEED BOOK 269, PAGE 263

App. B

1513+75 "PR-A"
320'

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

+58
215'

+58
175'

175' L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

19 Tons Revetment Riprap
36 Sys Geotextiles Req'd.

+00, Str. 919
Inlet Type, N-12 w/
92' of 18" Pipe and
1 P.E.S. Req'd

56 Tons Class I Riprap
50 Sys Geotextiles Req'd.

55 Tons Class II Riprap
39 Sys Geotextiles Req'd.

Const. Limits

22 Tons Revetment Riprap
26 Sys Geotextiles Req'd.

Filter Berm

+65, Str. No. 976
306 lft of 72" Pipe w/
2 Pipe Anchors Req'd
Skew 14° Rt.

+95, Str. No. 977
252 lft of 48" Pipe w/
2 Pipe Anchors Req'd
Skew 7° Lt.

365' Taper

5 Tons Revetment Riprap
10 Sys Geotextiles Req'd.

+40, SB No. 4-0003
Springbox, 105' Lt.
104' of 12" Pipe w/
1 P.E.S. Req'd

MATCH LINE STA. 1500+50

MATCH LINE STA. 1515+50

I-69 Southbound

I-69 Northbound

Line "PR-A"

Line "A"

Line "SER-3"

Detention
Basin Req'd

+15 "PR-A", Str. No. 975
450 lft of 48" Pipe w/
2 Pipe Anchors Req'd.

+30, SH No. 4-0094
Sinkhole, 145' Rt.
Aggregate Cap
Geomembrane Ditch

+35, SH No. 4-1608
Sinkhole, 155' Rt.
Aggregate Cap
Geomembrane Ditch

100' Taper

PI Sta. 1511+18.54 "SER-3"

+00, Str. 920
Inlet Type, N-12 w/
126' of 18" Pipe and
1 P.E.S. Req'd

Eq.
PC Sta. 1509+99.31 "SER-3" =
OPOC 1509+99.31 "PR-A", 66' Rt.

PT Sta. 1512+37.73 "SER-3"

1,032.5' Median Taper from 60' to 30'-6"

+00 "PR-A"
230'

CURVE DATA
PI = 1511+18.54 "SER-3"
Δ = 2° 43' 53" (LT)
R = 5,001.17'
T = 119.23'
L = 238.42'
E = 1.42'
S.E. = N.C.

Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County

App. B

Note:
All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "PR-A" to be constructed.

All callouts for improvements are located from Line "PR-A" unless otherwise noted.

LEGEND
SH Sinkhole
SPR Spring
Do Not Disturb Trees
Z See Typical Sections for Construction Materials

For Sinkhole Treatment Details See Sheet 100.
For Spring Box Details See Sheet 103.

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
9/6/2012
DATE

DESIGNED: MDO
DRAWN: KCH
CHECKED: HCF
CHECKED: MDO

INDIANA
DEPARTMENT OF TRANSPORTATION

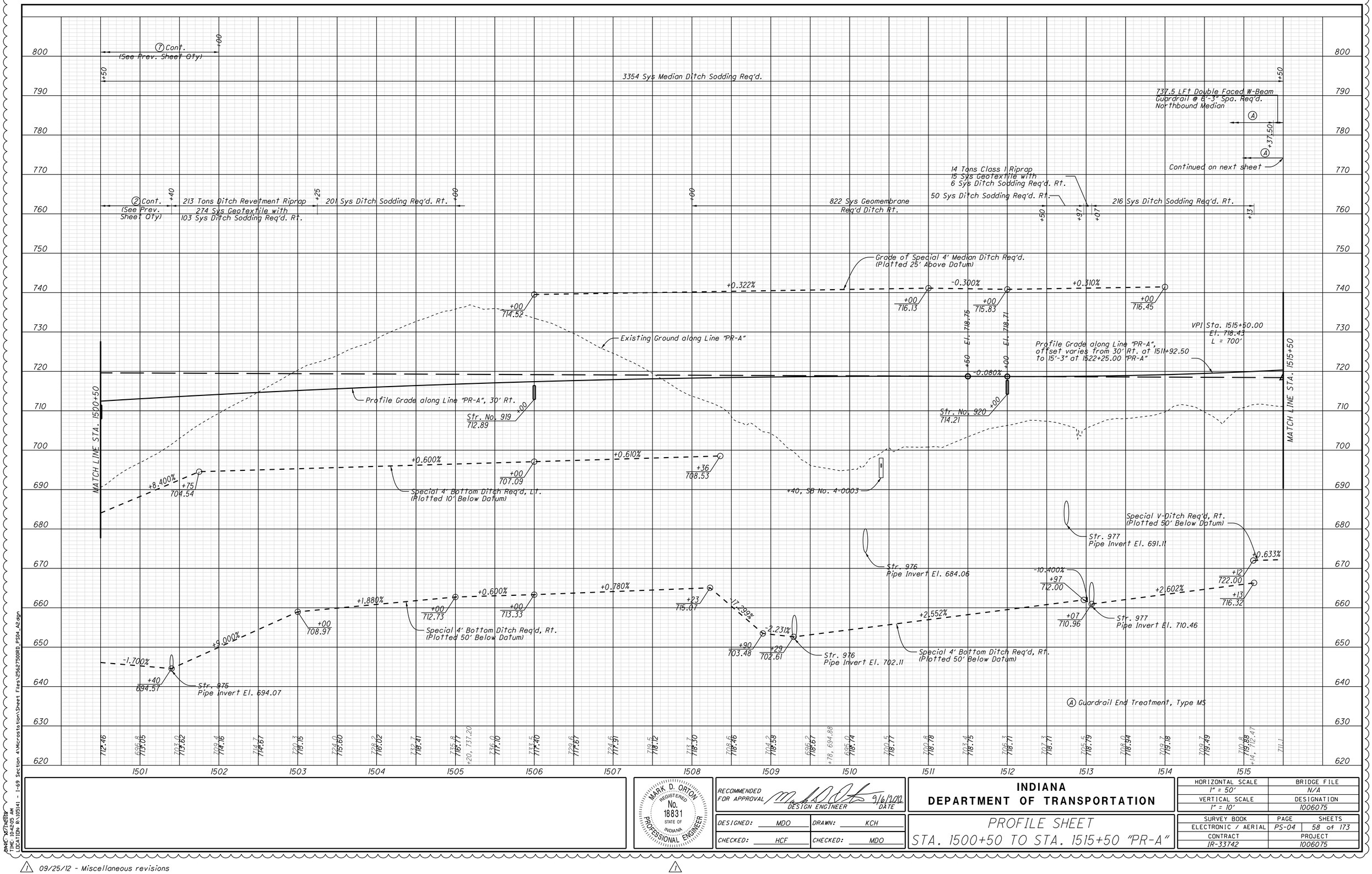
PLAN SHEET
STA. 1500+50 TO STA. 1515+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-04	57 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

1



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	9/6/2012 DATE	
DESIGNED: MDO	DRAWN: KCH		
CHECKED: HCF	CHECKED: MDO		

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1500+50 TO STA. 1515+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-04	58 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

PLOT DATE: 09/25/2012
TIME: 10:42:05 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275000RD_PS04_A2.dgn

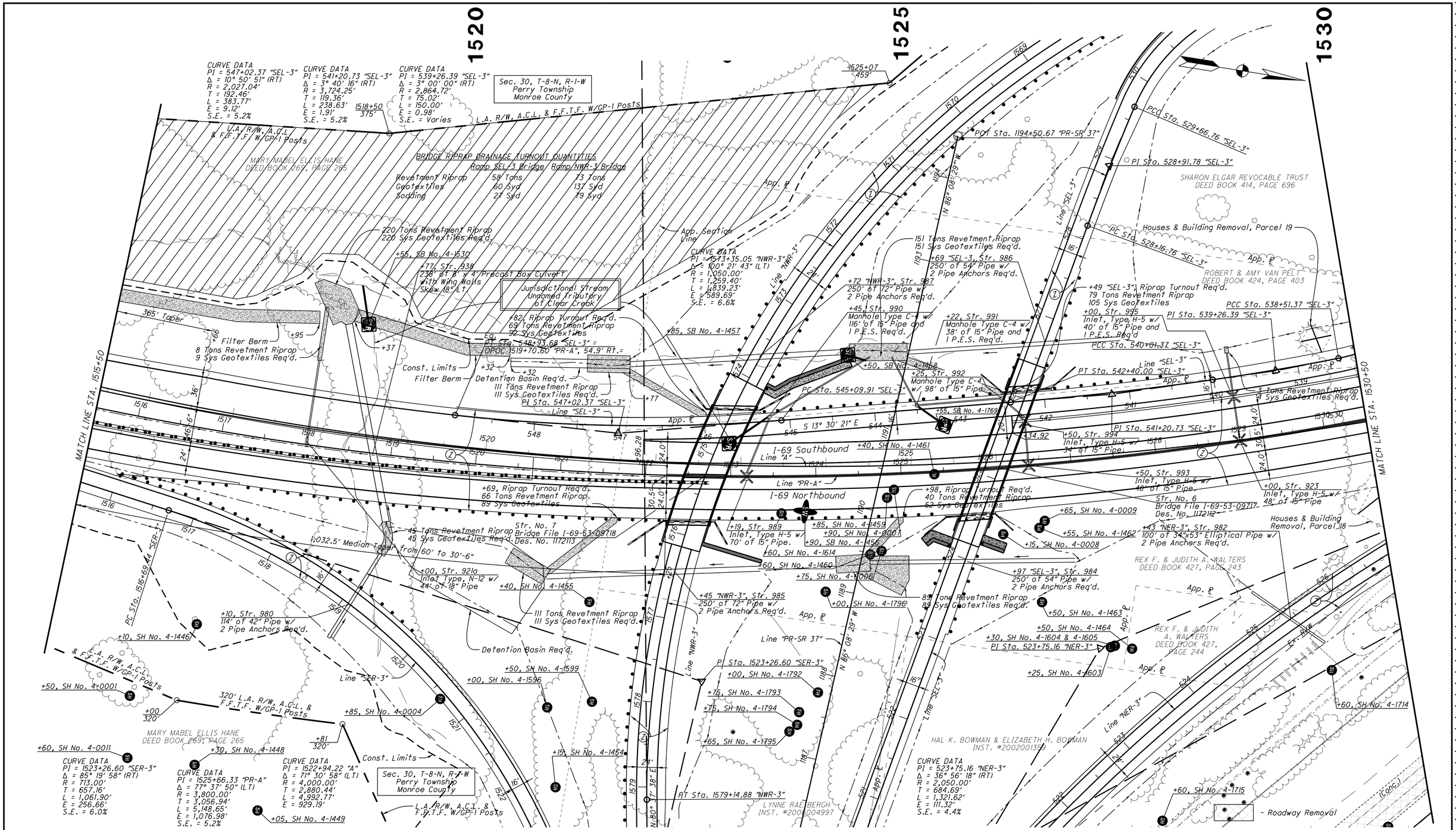
1 09/25/12 - Miscellaneous revisions

Monument Type "C" Req'd
Sta. 1521+31.53 "PR-A", 320' Rt.

Monument Type "C" Req'd
Sta. 1522+28.88 "PR-A", 436.1' Lt.

Monument Type "D" Req'd
P.O.C. Sta. 1524+00.00 "PR-A"

Monument Type "C" Req'd
P.I. Sta. 1525+66.33 "PR-A", 1,076.9' Rt.



LEGEND

SH Sinkhole
SPR Spring
SW Swallet
Do Not Disturb Trees
Ⓩ See Typical Sections for Construction Materials (From 1462+50 "A" to 1522+25 "PR-A", use Rural Typical Sections. From 1522+25 "PR-A" to 1553+25 "PR-A", use Uran Typical Sections.)

For Sinkhole Treatment Details See Sheet 100.
For Spring Box Details See Sheet 103.
For Karst Treatments See Sheet 149.

Note:
All R/W on this sheet to be as shown.
All R/W on this sheet described from Line "A" except as noted.
Line "PR-A" to be constructed.

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 1515+50 TO STA. 1530+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-05	59 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

1

Curved Terminal End Req'd.

737.5 Lft Double Faced W-Beam Guardrail @ 6'-3" Spa. Req'd Northbound Median

296.2 Lft of Conc. Barrier 45 in., Modified Required, Median

445.1 Lft of Conc. Barrier 33 in., Modified Required, Left

2,698.4 Lft of Conc. Barrier 45 in., Modified Required, Median

1 Conc. Bridge Railing Transition, Type TFT, 20.38 Lft of Conc. Barrier, Type FT, and 1 Conc. Bridge Railing Transition, Type TFT

1 Conc. Bridge Railing Transition, Type TFT and 38.61 Lft of Conc. Barrier, Type FT

Continued on previous sheet
643.75 Lft W-Beam Guardrail @ 6'-3" Spa. Req'd. NB Outside (Cont. from Previous Sheet)

225 Lft of W-Beam Guardrail @ 6'-3" Spa. Required NB Outside

NB, Outside

+53.32
+97.07
+22.07
+82.45
+07.45
+23.86
+48.86
+01.41
+75.00
+94.34
+90.56
+26.56
+34.92

Str. No. 7
Ramp NWR-3 over I-69
Bridge File I-69-53-09718
Des. No. 1172113

Str. No. 6
Ramp SEL-3 over I-69
Bridge File I-69-53-09717
Des. No. 1172112

16'-8" Min. Vert. Cl.

16'-8¾" Min. Vert. Cl.

MATCH LINE STA. 1515+50

MATCH LINE STA. 1530+50

Profile Grade along Line "PR-A", offset varies from 30' Rt. at 1511+92.50 to 15'-3" at 1522+26.00 "PR-A"

Profile Grade along Line "PR-A", 15'-3" Rt.

Existing Ground along Line "PR-A"

VPI Sta. 1515+50.00
El. 718.43
L = 700'

+2.120%

+00
El. 725.85

+00, Str. 923
+00, Str. 995

+25, Str. 992
+50, Str. 993
+50, Str. 994
+55, SB No. 4-1769
+25, Str. 991
+45, Str. 990
+50, SB No. 4-1458
+85, SB No. 4-1457

Str. 986

+16
737.00
+0.414%
Special V-Ditch Req'd, Lt.
(Plotted 10' Below Datum)

+74
736.00

Str. No. 921a
720.13
+00

Str. 987

+4.054%
+15
721.50
+41
718.50
Special 4' Bottom Ditch Req'd, Lt.
(Plotted 10' Below Datum)

+56, SB No. 4-1530

+3.192%
+75.33
708.50
+50
704.50
Special 4' Bottom Ditch Req'd, Lt.
(Plotted 10' Below Datum)

+31, Str. 938
Box Invert El. 701.00

Special 4' Bottom Ditch Req'd, Rt.
(Plotted 50' Below Datum)
+2.111%

Str. 984

+3.546%
+95
736.50
+94
740.01

Str. 985

Special Ditch Req'd, Rt.
Ditch Bottom varies 4' to 78'
for Detention Basin
(Plotted 50' Below Datum)

+1.587%
+60
731.50
+34
729.50
Special 4' Bottom Ditch Req'd, Rt.
(Plotted 50' Below Datum)

Special V-Ditch Req'd, Rt.
(Plotted 50' Below Datum)
+0.633%
+91
722.50
-2.349%

+2.591%
+98
720.50

+89
715.50
+05
715.50
+03, Str. 938
Box Invert El. 715.00

90 Tons Revetment Riprap
140 Sys Geotextile with
84 Sys Ditch Sodding Req'd Lt.
+25
+75

78 Tons Revetment Riprap
102 Sys Geotextile with
42 Sys Ditch Sodding Req'd Lt.
+41
+15

46 Tons Revetment Riprap
61 Sys Geotextile with
25 Sys Ditch Sodding Req'd Rt.
+50
+94

1510 Sys Median Ditch Sodding Req'd.
+50
+25

177 Sys Ditch Sodding Req'd. Rt.
+91

1,520 Sys Geomembrane Req'd Ditch Rt.
+85
+00
(8)

265 Sys Geomembrane Req'd Ditch Rt.
+25
+70
(8)

119 Sys Geomembrane Req'd Ditch Rt.
+85
(8)

268 Sys Ditch Sodding Req'd. Rt.
+50

(A) Guardrail End Treatment, Type OS
(B) 31.45 Lft W-Beam Guardrail
(C) Guardrail Transition Type TGB

(8) Attach Geomembrane to Structure Invert per Manufacturer's Recommendation

720.35 709.5 720.30 708.8 721.53 709.4 722.24 709.7 723.02 712.0 723.89 +38, 707.34 724.33 708.8 725.85 714.6 726.91 714.1 727.91 718.1 729.03 720.1 730.09 722.6 731.16 720.8 732.21 726.4 733.27 725.0 734.33 731.3 735.39 739.0 736.45 742.8 737.51 744.6 738.57 744.5 739.63 745.8 740.69 743.3 741.75 743.9 742.81 750.3 743.87 754.3 744.93 759.8 745.99 763.9 747.05 773.8 748.11 782.6 749.17 788.7

1516 1517 1518 1519 1520 1521 1522 1523 1524 1525 1526 1527 1528 1529 1530

800 790 780 770 760 750 740 730 720 710 700 690 680 670 660 650 640 630 620

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
9/6/2012
DATE

DESIGNED: MDO
DRAWN: KCH
CHECKED: HCF
CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1515+50 TO STA. 1530+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-05	60 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

APPROVED
TIME: 10:42:08 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275ORD_PS05_A2.dgn

1 09/25/12 - Miscellaneous revisions

1

Monument Type "D" Req'd
P.O.C. Sta. 1534+00.00 "PR-A"

Monument Type "D" Req'd
P.O.C. Sta. 1544+00.00 "PR-A"

Notes:
All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "PR-A" to be constructed.

LEGEND

SH Sinkhole

Ⓩ See Typical Sections for Construction Materials

For Sinkhole Treatment Detail See Sheet 100.

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/6/2012

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 1530+50 TO STA. 1545+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-06	61 of 173
CONTRACT		PROJECT
IR-33742		1006075

△1 09/25/12 - Miscellaneous revisions

445.1 Lft of Conc. Barrier 33 in., Mod. Req'd., Lt.
(Cont. from Previous Sheet)

353.6 Lft of Conc. Barrier 33 in. Req'd., Lt.

+80

+33.63

2,698.4 Lft of Conc. Barrier 45 in., Modified Required, Median (Continued from Previous Sheet)

MATCH LINE STA. 1530+50

MATCH LINE STA. 1545+50

Existing Ground along Line "PR-A"

Profile Grade along Line "PR-A", 15'-3" Rt.

+00 El. 766.13

+2.120%

+00, Str. 924

+00, Str. 925

+00, Str. 926

+00, Str. 927

VPI Sta. 1543+00.00
El. 776.73
L = 1,000'

-0.800%

Special 4' Bottom Ditch Req'd, Lt.
(Plotted 10' Below Datum)

-0.472%

+38
749.00

+50
748.00

-0.935%

+71
745.00

+8.333%

+00
755.75

+1.081%

+13
760.24

Special 4' Bottom Ditch Req'd, Lt.
(Plotted 10' Below Datum)

+2.969%

+07
766.00

+4.444%

+52
768.00

+2.469%

+33
770.00

+1.163%

5 Tons Revetment Riprap
7 Sys Geotextile with
3 Sys Ditch Sodding Req'd. Lt.

+10

+15

100 Tons Revetment Riprap
131 Sys Geotextile with
53 Sys Ditch Sodding Req'd. Lt.

+82

+77

149 Sys Ditch Sodding Req'd. Lt.

+25

12 Sys Ditch Sodding Req'd. Rt.

886 Sys Geomembrane
Req'd Ditch Lt.

593 Sys Ditch Sodding Req'd. Lt.

391 Tons Revetment Riprap
516 Sys Geotextile with
208 Sys Ditch Sodding Req'd Rt.

+24

+35

+50

+99
758.90

+1.667%

+3.750%

+35
759.50

+3.200%

+75
758.00

+2.425%

+54
758.75

+0.547%

+5.714%

+4.329%

+15
752.00

+50
754.00

+66.50
751.79

Connect to Ditch on "NER-3"

Special 4' Bottom Ditch Req'd, Rt.
(Plotted 50' Below Datum)

+76
746.94

300 Sys Ditch Sodding Req'd. Rt.

+67

+54

Special 4' Bottom Ditch Req'd, Rt.
(Plotted 50' Below Datum)

840 830 820 810 800 790 780 770 760 750 740 730 720 710 700 690 680 670 660

750.23 +86, 792.38 790.6 751.29 787.0 752.35 780.5 753.41 777.9 754.47 771.6 755.53 768.9 756.59 766.3 757.65 765.7 758.71 766.7 759.77 767.6 760.83 766.3 761.89 765.6 762.96 +84, 761.21 762.6 764.01 765.1 765.07 763.6 766.13 764.4 767.15 765.6 768.20 767.4 768.98 769.3 769.79 770.7 770.52 771.2 771.18 771.6 771.76 771.8 772.27 771.9 772.91 773.8 773.08 773.8 773.37 773.3 773.59 773.7 773.74 770.2 773.82 770.0

1531 1532 1533 1534 1535 1536 1537 1538 1539 1540 1541 1542 1543 1544 1545

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1530+50 TO STA. 1545+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-06	62 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE 09/26/2012
TIME 10:42:10 AM
LOCATION K:\105141 - I-69 Section 4\Microstation\Sheet Files\256275ORD_PS06_A2.dgn

1 09/25/12 - Miscellaneous revisions

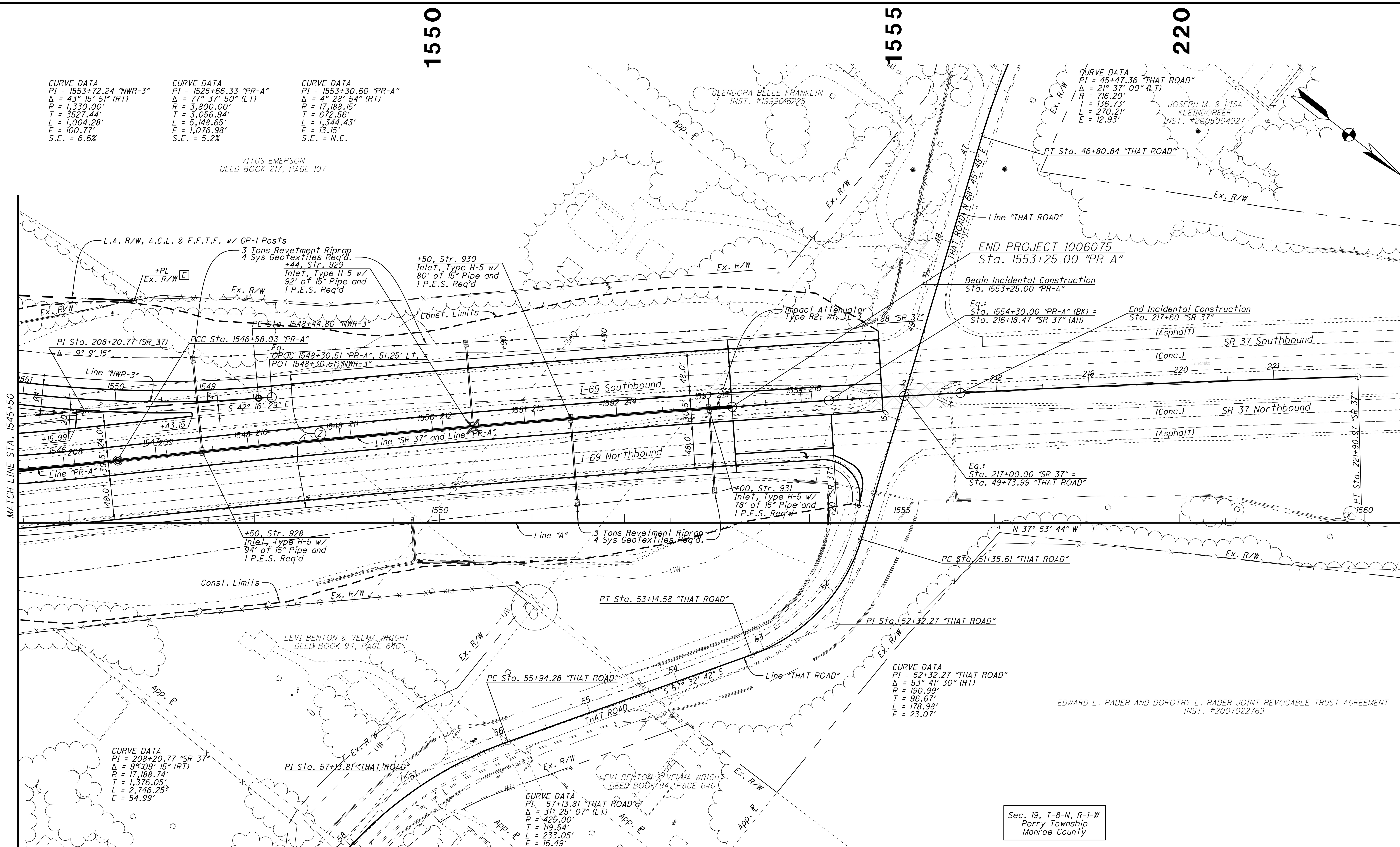
1

Monument Type "D" Req'd
P.C.C. Sta. 1546+58.04 "PR-A"

Monument Type "C" Req'd
Sta. 1546+93.76 "PR-A", 170.0' Lt.

Monument Type "C" Req'd
Sta. 1550+66.29 "PR-A", 175.0' Rt.

Monument Type "D" Req'd
P.o.C. Sta. 1553+25.00 "PR-A"



Note:
All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "PR-A" to be constructed.

LEGEND

(Z) See Typical Sections for Construction Materials

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET

STA. 1545+50 TO STA. 1560+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 50'	N/A	
VERTICAL SCALE	DESIGNATION	
NONE	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-07	63 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

△1 09/25/12 - Miscellaneous revisions

2,698.4 Lft of Conc. Barrier 45 in., Modified Required, Median (Continued from Previous Sheet)

+25

END PROJECT 1006075
Sta. 1553+25.00 "PR-A"
El. 772.39

Begin Incidental Construction
Sta. 1553+25.00 "PR-A"

Eq.:
Sta. 1554+30.00 "PR-A" (BK) =
Sta. 216+18.47 "SR 37" (AH)

End Incidental Construction
Sta. 217+60.00 "SR 37"
El. 773.18

VPI Sta. 1549+80.00
El. 771.29
L = 300'

MATCH LINE STA. 1545+50

+00 El. 772.73

+30 El. 772.49

+30 El. 771.77

-0.800%

-0.800%

+0.320%

Profile Grade along Line "PR-A", 15'-3" Rt.

Existing Ground along Line "PR-A"

+00, Str. 928

+44, Str. 929

+50, Str. 930

+00, Str. 931

Special V-Ditch Req'd, Lt.
(Plotted 10' Below Datum)

+1.163%

+19
771.00

+0.627%

+1.152%

+28
763.58

+50
765.60

+25
769.92

Connect to Existing Ditch

Special 4' Bottom Ditch Req'd, Lt.
(Plotted 10' Below Datum)

149 Sys Ditch Sodding Req'd. Lt.
(Conf. from Previous Sheet)

+19

392 Sys Ditch Sodding Req'd Lt.

+50

+25

27 Tons Revetment Riprap

+00

+25

35 Sys Geotextile with
14 Sys Ditch Sodding Req'd Rt.

+6.760%

+0.547%

+00
767.75

+25
769.44

Connect to Existing Ditch

Special 4' Bottom Ditch Req'd, Rt.
(Plotted 50' Below Datum)

773.82 770.75 773.80 769.7 773.38 769.9 773.09 770.2 772.73 770.2 772.34 770.2 772.02 770.4 771.80 770.6 771.67 770.7 771.63 770.7 771.69 770.9 771.83 770.9 771.99 +22, 790.55 772.16 771.4 772.31 771.6 771.7 772.1 772.7 772.6 772.1 772.2 772.4 772.6 772.6 772.6 772.7 772.8 773.0

840 830 820 810 800 790 780 770 760 750 740 730 720 710 700 690 680 670 660

1546 1547 1548 1549 1550 1551 1552 1553 1554 1555 1556 1557 1558 1559 1560

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1545+50 TO STA. 1560+50 "PR-A"

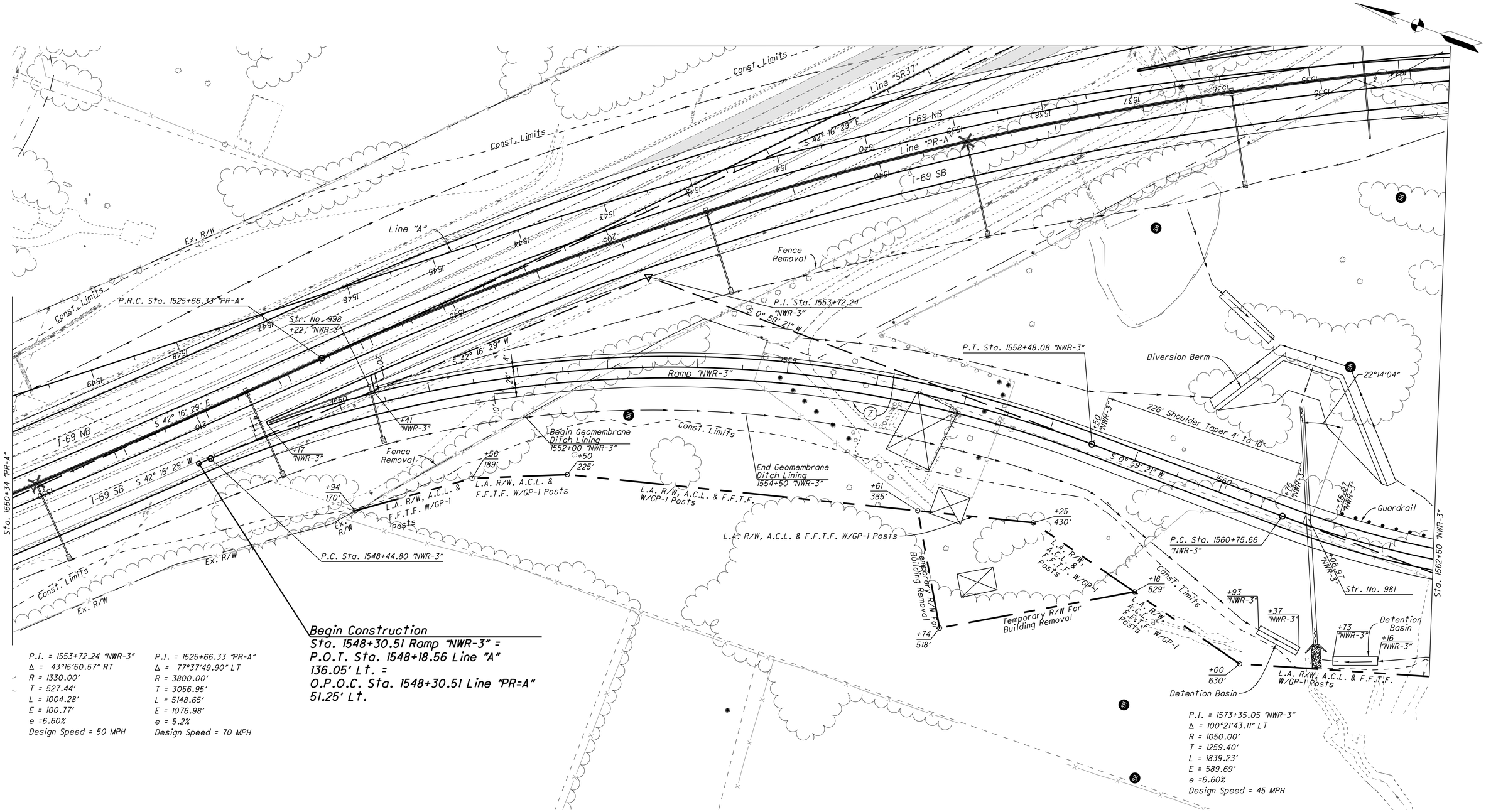
HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-07	64 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

1

DATE: 10/17/2012
TIME: 10:42:12 AM
LOCATION: K:\105141 - I-69 Section 4\Microstation\Sheet Files\256275000_PS07_AE.dgn



P.I. = 1553+72.24 "NWR-3"
Δ = 43°15'50.57" RT
R = 1330.00'
T = 527.44'
L = 1004.28'
E = 100.77'
e =6.60%
Design Speed = 50 MPH

P.I. = 1525+66.33 "PR-A"
Δ = 77°37'49.90" LT
R = 3800.00'
T = 3056.95'
L = 5148.65'
E = 1076.98'
e = 5.2%
Design Speed = 70 MPH

P.I. = 1573+35.05 "NWR-3"
Δ = 100°21'43.11" LT
R = 1050.00'
T = 1259.40'
L = 1839.23'
E = 589.69'
e =6.60%
Design Speed = 45 MPH

Notes:
All R/W On This Sheet To Be As Shown
All R/W On This Sheet Described From Line "PR-A" Unless Otherwise Noted
Limited Access R/W Requirements To Apply Where Indicated
See Sheet 149 For Karst Features Legend And Table

Legend
- Building Removal, By Others
- (Z) See Typical Sections For Construction Materials
- Concrete Pavement Removal

For Drainage Structure Information See Detail Sheets 117-120

William James Williams, Registered No. 10810125 State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET
RAMP "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-08	65 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:34:48 AM
LOCATION: N:\Projects\25627300\Y Drawings\Y4 Trans\Transp\Cadd\Road\SSY_Plan and Profiles Sheets\25627300PP01-SSR.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

P.I. = 528+91.78 "SEL-3"
Δ = 3°00'00.26" RT
R = 2864.72'
T = 75.02'
L = 150.00'
E = 0.98'
e = 2.2%
Design Speed = 55 MPH

P.I. = 531+42.68 "SEL-3"
Δ = 78°34'50" RT
R = 215.00'
T = 175.91'
L = 294.87'
E = 62.80'
e = 8.0%
Design Speed = 55 MPH

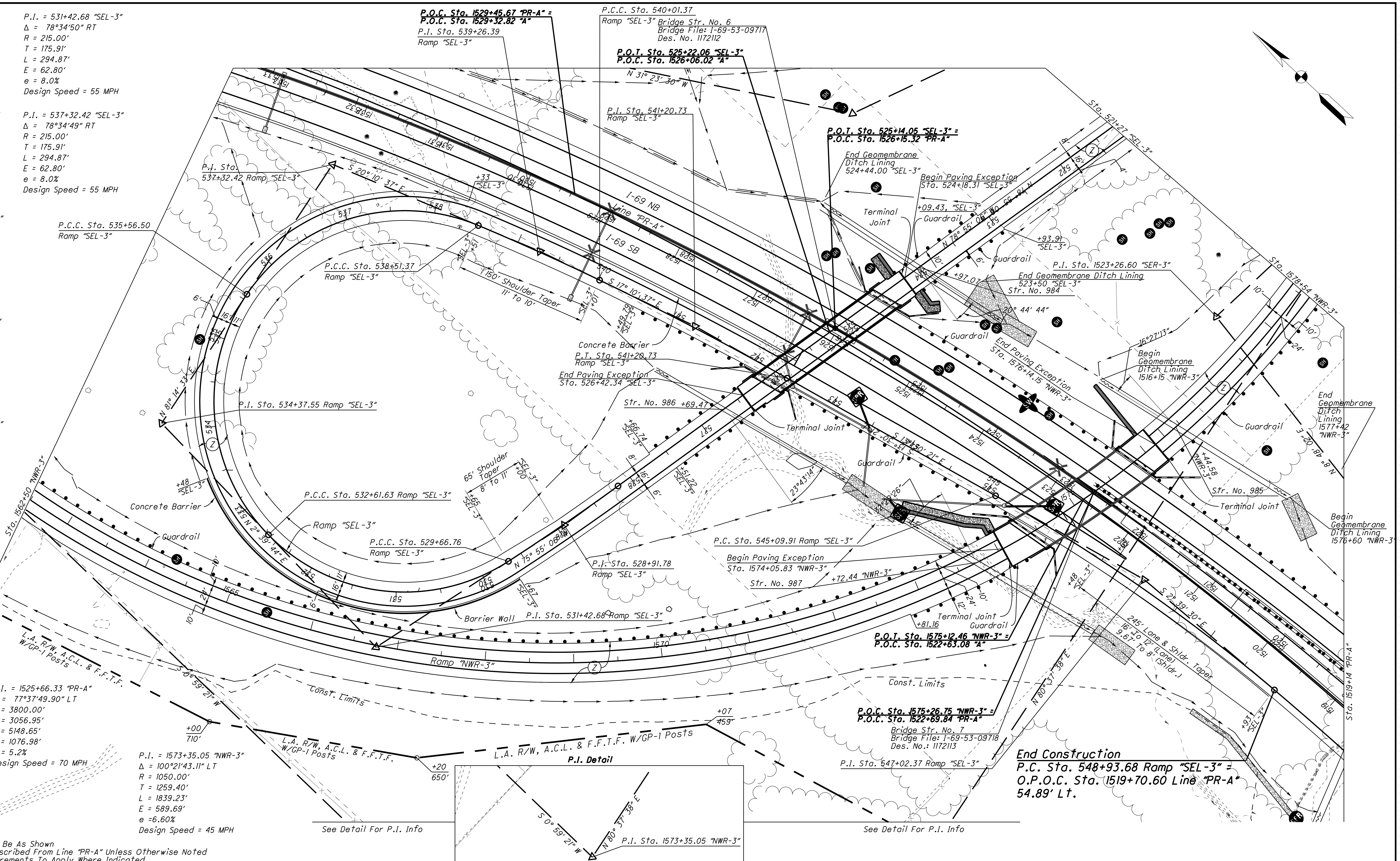
P.I. = 534+37.55 "SEL-3"
Δ = 78°34'49" RT
R = 215.00'
T = 175.91'
L = 294.87'
E = 62.80'
e = 8.0%
Design Speed = 55 MPH

P.I. = 537+32.42 "SEL-3"
Δ = 78°34'49" RT
R = 215.00'
T = 175.91'
L = 294.87'
E = 62.80'
e = 8.0%
Design Speed = 55 MPH

P.I. = 539+26.39 "SEL-3"
Δ = 3° 00' 00" (RT)
R = 2864.72'
T = 75.02'
L = 150.00'
E = 0.98'
e = 2.0%
Design Speed = 55 MPH

P.I. = 541+20.73 "SEL-3"
Δ = 3° 40' 16" (RT)
R = 3724.25'
T = 119.36'
L = 238.63'
E = 1.91'
e = 5.2%
Design Speed = 55 MPH

P.I. = 547+02.37 "SEL-3"
Δ = 10° 50' 51" (RT)
R = 2027.04'
T = 192.46'
L = 383.77'
E = 9.12'
e = 5.2%
Design Speed = 55 MPH



P.O.C. Sta. 1529+45.67 "PR-A" =
P.O.C. Sta. 1529+32.82 "A"
P.I. Sta. 539+26.39 Ramp "SEL-3"
P.C.C. Sta. 540+01.37 Ramp "SEL-3"
Bridge Str. No. 6
Bridge File: I-69-53-09717
Des. No. 1172112
P.O.T. Sta. 525+22.06 "SEL-3"
P.O.C. Sta. 1526+06.02 "A"
P.I. Sta. 541+20.73 Ramp "SEL-3"
P.O.T. Sta. 525+14.05 "SEL-3" =
P.O.C. Sta. 1526+15.32 "PR-A"
End Geomembrane Ditch Lining 524+44.00 "SEL-3"
Begin Paving Exception Sta. 524+18.31 "SEL-3"
I-69 NB
Line "PR-A"
I-69 SB
P.C.C. Sta. 535+56.50 Ramp "SEL-3"
P.C.C. Sta. 538+51.37 Ramp "SEL-3"
150' Shoulder Taper 11' To 10'
P.I. Sta. 1523+26.60 "SER-3"
End Geomembrane Ditch Lining 523+50 "SEL-3"
Str. No. 984
Concrete Barrier
End Paving Exception Sta. 526+42.34 "SEL-3"
Str. No. 986
End Paving Exception Sta. 1576+14.15 "NWR-3"
Begin Geomembrane Ditch Lining 1516+15 "NWR-3"
End Geomembrane Ditch Lining 1577+42 "NWR-3"
P.I. Sta. 534+37.55 Ramp "SEL-3"
Terminal Joint
Guardrail
65' Shoulder Taper 8' To 11'
P.C.C. Sta. 532+61.63 Ramp "SEL-3"
Ramp "SEL-3"
P.C.C. Sta. 529+66.76 Ramp "SEL-3"
P.I. Sta. 528+91.78 Ramp "SEL-3"
P.C. Sta. 545+09.91 Ramp "SEL-3"
Begin Paving Exception Sta. 1574+05.83 "NWR-3"
Str. No. 987
Str. No. 985
Begin Geomembrane Ditch Lining 1576+60 "NWR-3"
Barrier Wall
P.I. Sta. 531+42.68 Ramp "SEL-3"
P.O.T. Sta. 1575+12.46 "NWR-3" =
P.O.C. Sta. 1522+63.08 "A"
245' Lane & Shldr. Taper 16' To 12' (Lane) 9.67' To 8' (Shldr.)
Ramp "NWR-3"
Const. Limits
L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts
P.O.C. Sta. 1575+26.75 "NWR-3" =
P.O.C. Sta. 1522+69.84 "PR-A"
Bridge Str. No. 7
Bridge File: I-69-53-09718
Des. No.: 1172113
P.I. Sta. 547+02.37 Ramp "SEL-3"
End Construction
P.C. Sta. 548+93.68 Ramp "SEL-3" =
O.P.O.C. Sta. 1519+70.60 Line "PR-A"
54.89' Lt.
P.I. Detail
P.I. Sta. 1573+35.05 "NWR-3"
See Detail For P.I. Info

P.I. = 1525+66.33 "PR-A"
Δ = 77°37'49.90" LT
R = 3800.00'
T = 3056.95'
L = 5148.65'
E = 1076.98'
e = 5.2%
Design Speed = 70 MPH

P.I. = 1573+35.05 "NWR-3"
Δ = 100°21'43.11" LT
R = 1050.00'
T = 1259.40'
L = 1839.23'
E = 589.69'
e = 6.60%
Design Speed = 45 MPH

Note:
All R/W On This Sheet To Be As Shown
All R/W On This Sheet Described From Line "PR-A" Unless Otherwise Noted
Limited Access R/W Requirements To Apply Where Indicated
See Sheet 149 For Karst Features Legend And Table

Legend

☒ Building Removal, By Others

(Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120
For Bridge Information See:
Des. No. 1172112
Des. No. 1172113

William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED:	JB	DRAWN:	ETD
CHECKED:	RT	CHECKED:	WJW

INDIANA DEPARTMENT OF TRANSPORTATION

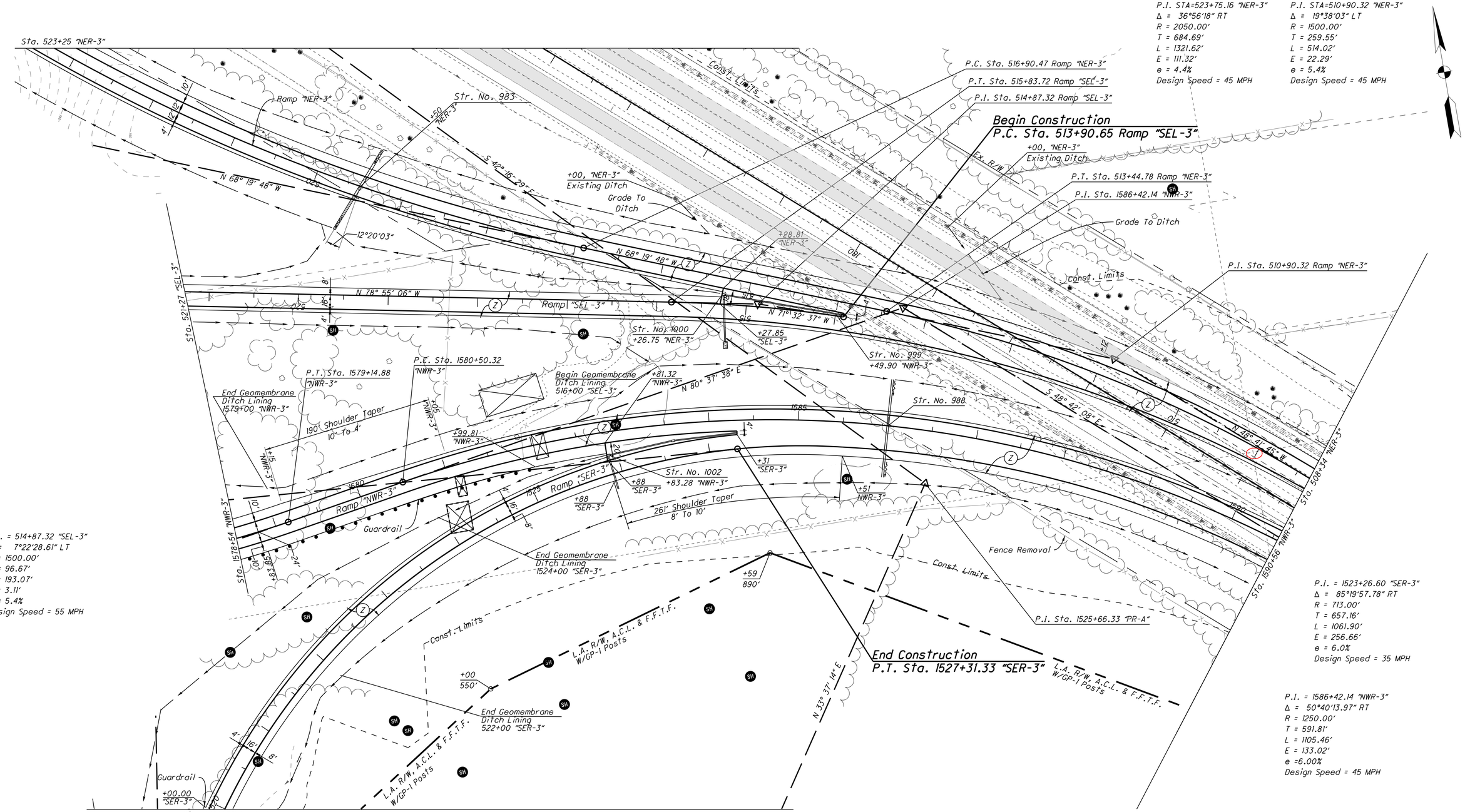
PLAN SHEET
RAMPS "NWR-3" "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-09	66 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/2/2012
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\Y Transp\Cadd\Road\S9\7_Plan and Profiles Sheets\S5627500PP02-S9R.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels
9/25/12 - Revised Guardrail



Note:
All R/W On This Sheet To Be As Shown
All R/W On This Sheet Described From Line "PR-A" Unless Otherwise Noted
Limited Access R/W Requirements To Apply Where Indicated
See Sheet 149 For Karst Features Legend And Table

Legend

- Building Removal, By Others
- (Z) See Typical Sections For Construction Materials
- Concrete Pavement Removal

For Drainage Structure Information See Detail Sheets 117-120

William James Williams REGISTERED No. 10810125 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB DRAWN: ETD
CHECKED: RT CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET
RAMPS "NER-3" "NWR-3" SEL-3" "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

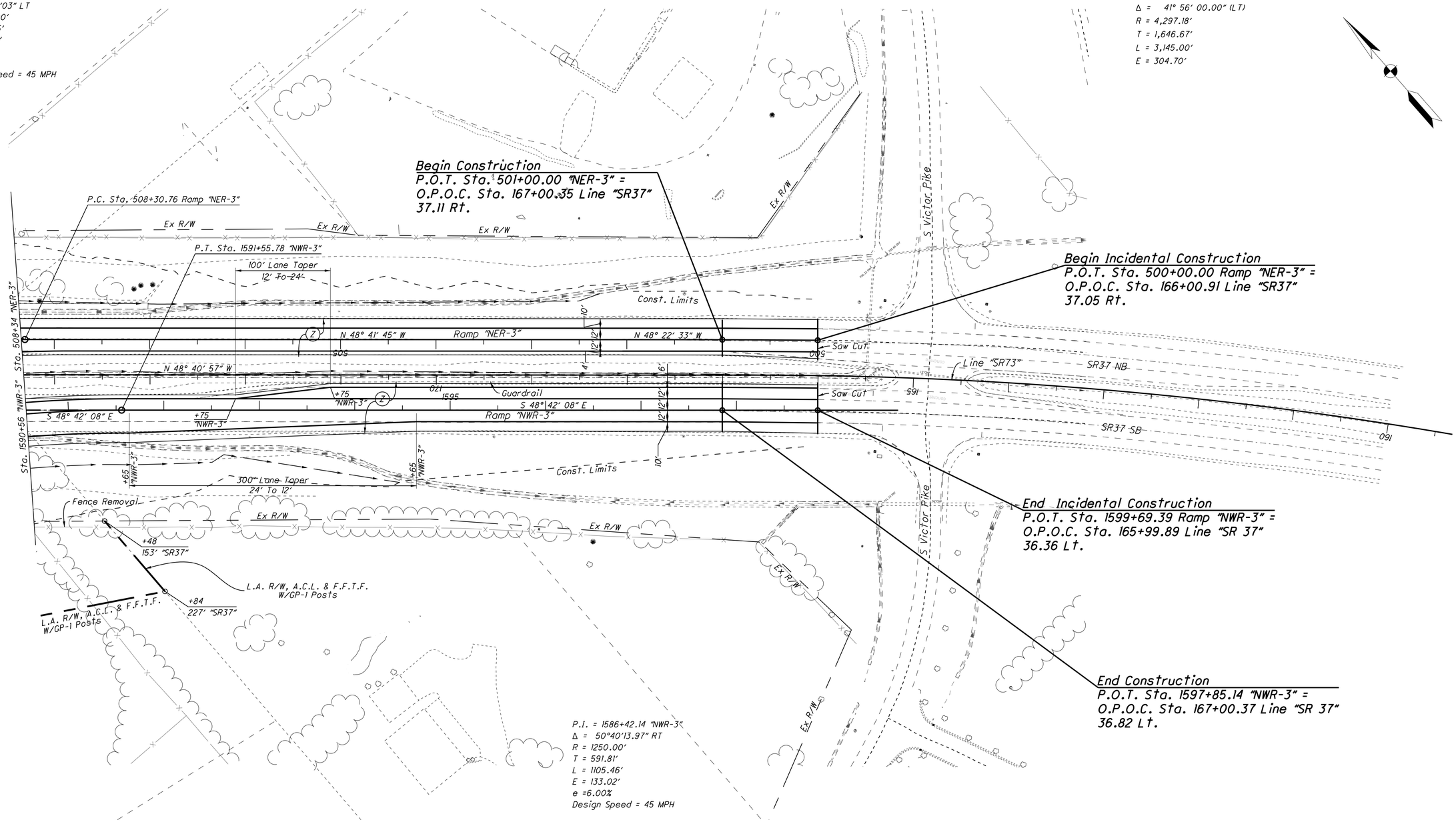
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-10	67 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:36:36 AM
LOCATION: N:\Projects\25627500\Y Drawings\V4 Trans\Transp\Cadd\Road\S3Y_Plan and Profiles Sheets\25627500PM03-S3R.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels
9/25/12 - Revised Guardrail

P.I. STA=510+90.32 "NER-3"
Δ = 19°38'03" LT
R = 1500.00'
T = 259.55'
L = 514.02'
E = 22.29'
e = 5.4%
Design Speed = 45 MPH

P.I. = 151+62.71 "SR37"
Δ = 41° 56' 00.00" (LT)
R = 4,297.18'
T = 1,646.67'
L = 3,145.00'
E = 304.70'



P.I. = 1586+42.14 "NWR-3"
Δ = 50°40'13.97" RT
R = 1250.00'
T = 591.81'
L = 1105.46'
E = 133.02'
e =6.00%
Design Speed = 45 MPH

Note:
All R/W On This Sheet To Be As Shown
All R/W On This Sheet Described From Line "PR-A" Unless Otherwise Noted
Limited Access R/W Requirements To Apply Where Indicated
See Sheet 149 For Karst Features Legend And Table

Legend
- Building Removal, By Others
- (Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET
RAMPS "NER-3" "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

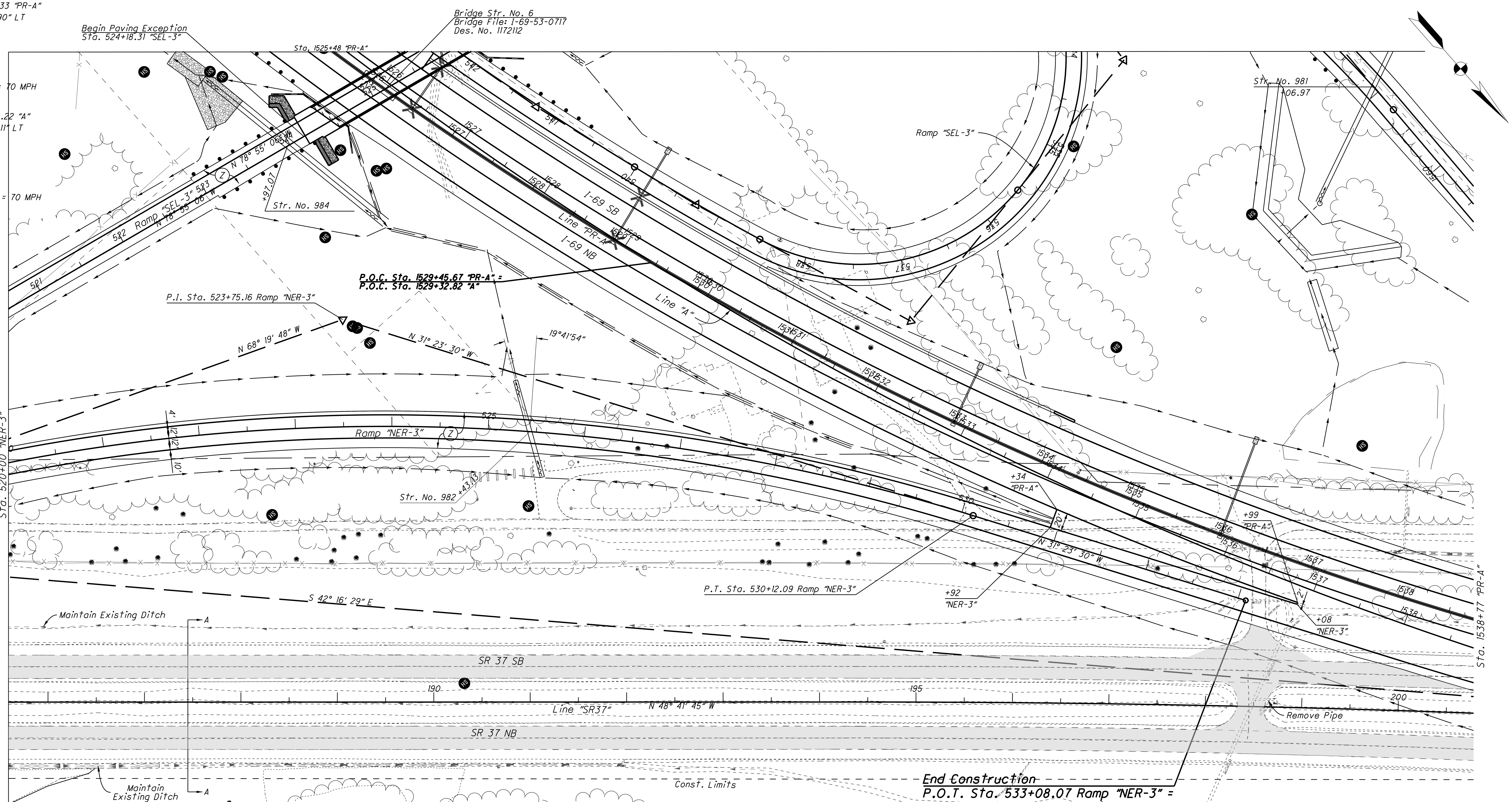
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-11	68 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

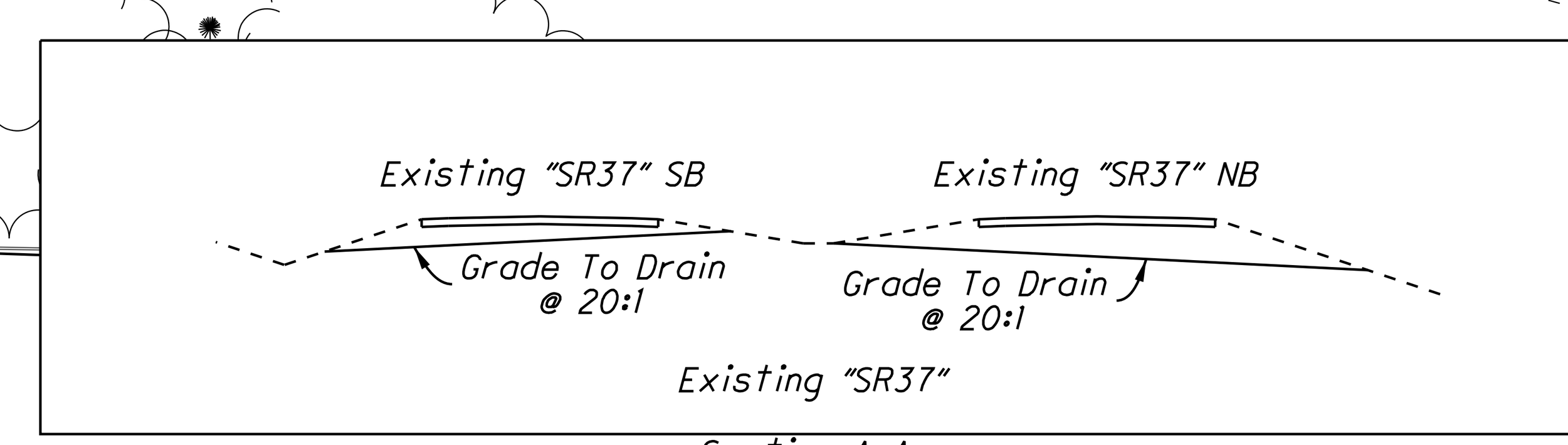
DATE: 10/3/2012
TIME: 10:34:54 AM
LOCATION: N:\Projects\2562750\Y Drawings\Y4 Trans\Y Transp\Cadd\Road\SVY_Plan and Profiles Sheets\2562750PP04-SR.dgn

P.I. = 1525+66.33 "PR-A"
Δ = 77°37'49.90" LT
R = 3800.00'
T = 3056.95'
L = 5148.65'
E = 1076.98'
e = 5.2%
Design Speed = 70 MPH

P.I. = 1522+94.22 "A"
Δ = 71°30'58.11" LT
R = 4000.00'
T = 2880.44'
L = 4992.77'
E = 929.19'
e = 5.2%
Design Speed = 70 MPH



P.I. STA=523+75.16 "NER-3"
Δ = 36°56'18" RT
R = 2050.00'
T = 684.69'
L = 1321.62'
E = 111.32'
e = 4.4%
Design Speed = 45 MPH



Section A-A

Note:
All R/W On This Sheet To Be As Shown
All R/W On This Sheet Described From Line "PR-A" Unless Otherwise Noted
Limited Access R/W Requirements To Apply Where Indicated
See Sheet 149 For Karst Features Legend And Table

Legend
- ☒ Building Removal, By Others
- Ⓩ See Typical Sections For Construction Materials
- ▩ Concrete Pavement Removal

For Drainage Structure Information See Detail Sheets 117-120

William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL: [signature] DESIGN ENGINEER, DATE 9/4/2012

DESIGNED: JB	DRAWN: ETD
CHECKED: RT	CHECKED: WJW

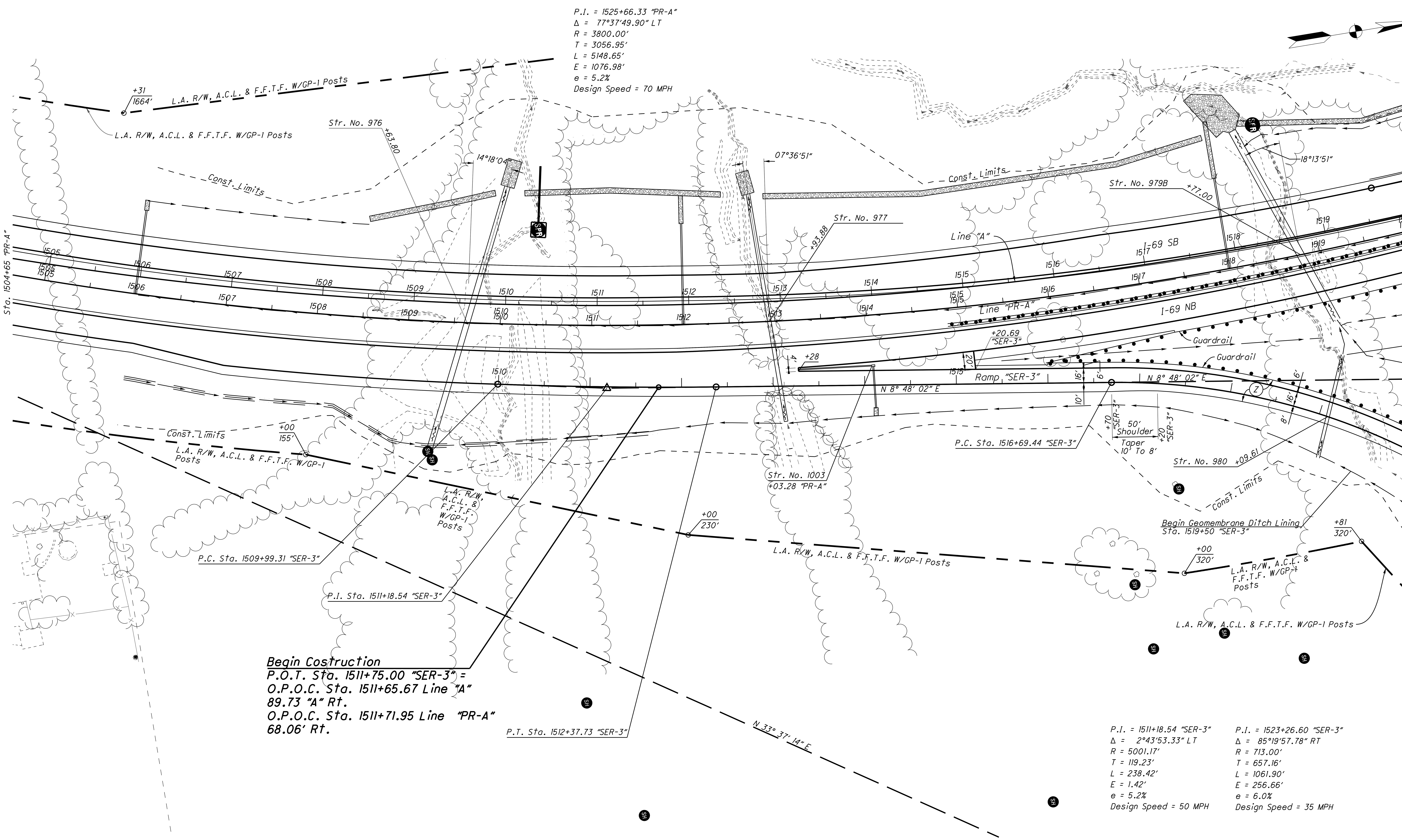
INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET
RAMP "NER-3"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 50'		
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-12	69 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
LOCATION: N:\Projects\2562750\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\7_Plan and Profiles Sheets\2562750PP05-S9R.dgn

⚠1
9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels
9/25/12 - Added Detail



Note:
All R/W On This Sheet To Be As Shown
All R/W On This Sheet Described From Line "PR-A" Unless Otherwise Noted
Limited Access R/W Requirements To Apply Where Indicated
See Sheet 149 For Karst Features Legend And Table

Legend

☒ Building Removal, By Others

(Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120

William James Williams — Registered No. 10810125 — State of Indiana — Professional Engineer

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 — DATE

DESIGNED:	JB	DRAWN:	ETD
CHECKED:	RT	CHECKED:	WJW

INDIANA
DEPARTMENT OF TRANSPORTATION

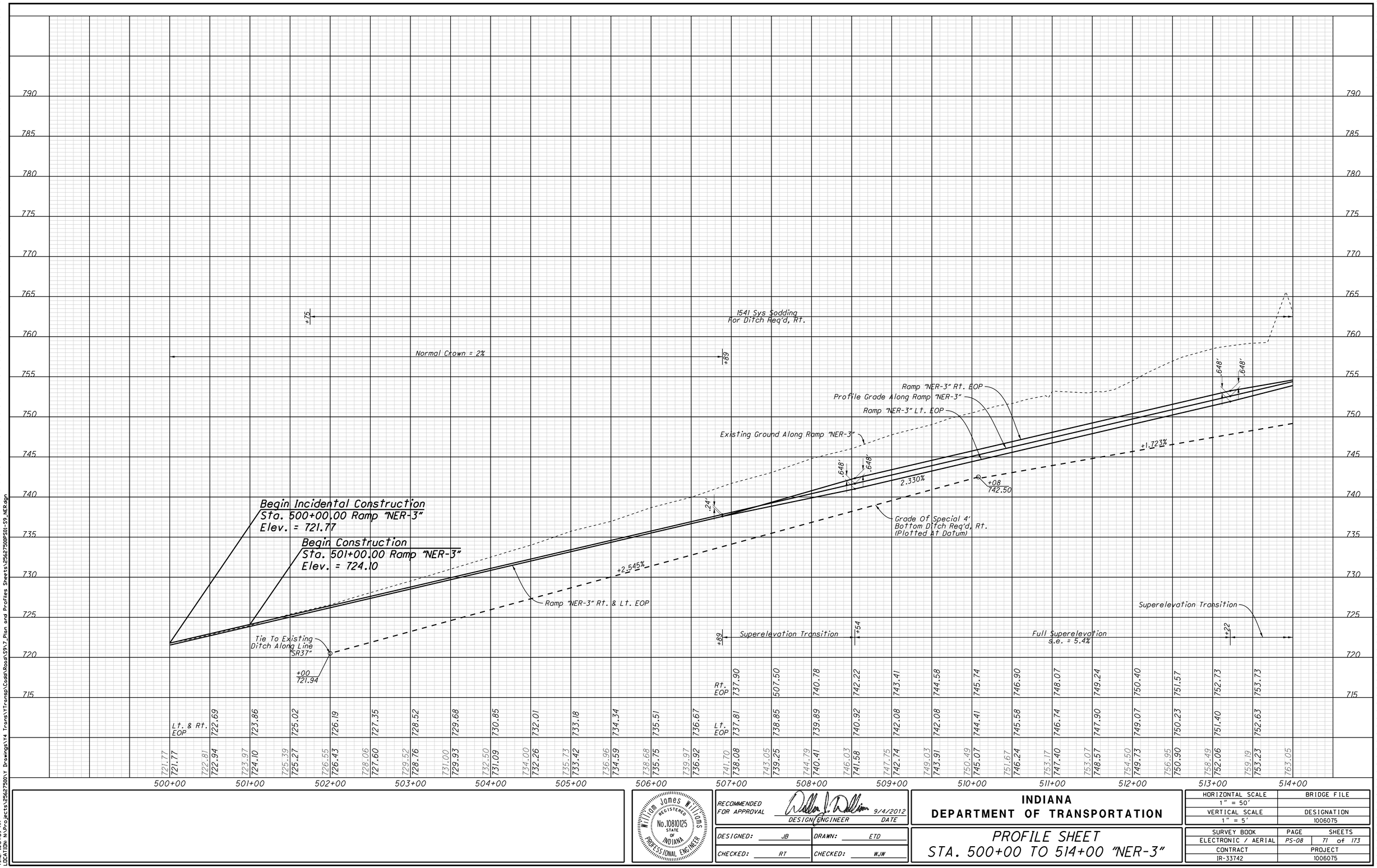
PLAN SHEET
RAMP "SER-3"

HORIZONTAL SCALE		BRIDGE FILE
1" = 50'		
VERTICAL SCALE		DESIGNATION
N/A		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-13	70 of 173
CONTRACT		PROJECT
IR-33742		1006075

DATE: 10/2/2012
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\7_Plan and Profiles Sheets\25627500PP06-S9R.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

1



William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB	DRAWN: ETD
CHECKED: RT	CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 500+00 TO 514+00 "NER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-08	71 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:39:57 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\Transp\Cadd\Road\S9\Y_Plan and Profiles Sheets\25627500PS01-S9_NER.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

P.V.I. STA. = 516+01.00
ELEV. = 759.08
V.C. = 300.00'

P.V.I. STA. = 528+56.52
ELEV. = 752.80
V.C. = 400.00'

+83 — 102 Tons Revetment Riprap And 159 Sys Geotextile For Ditch Req'd, Lt. — +55

+99 — 288 Sys Sodding For Ditch Req'd, Lt. — +55

+00 756.50

-0.509%

+08 755.95

Special "V" Ditch Req'd, Median (Plotted 30' Above Datum)

Grade Of Special 4' Bottom Ditch Req'd, Lt. (Plotted 30' Above Datum)

-3.656%

+30 751.49

-0.920%

+29 750.51

-3.156%

+61 749.50

+61

Existing Ground Along Ramp "NER-3"

Str. No. 983
Inv. = 749.00
(Plotted 30' Above Datum)

-0.533%

Str. No. 982
Inv. = 746.00
(Plotted 30' Above Datum)

+25

+24 746.50

+2.630%

+00 748.50

-1.000%

+50 750.00

24'

2.330%

24'

-0.500%

528'

528'

Ramp "NER-3" Lt. EOP

-0.500%

Profile Grade Along Ramp "NER-3"

Ramp "NER-3" Rt. EOP

-0.500%

+1.123%

+25 753.13

-0.838%

Grade Of Special 4' Bottom Ditch Req'd, Rt. (Plotted At Datum)

+39 Str. No. 983 Inv. = 750.00

+39 750.50

+0.978%

+50 752.56

-1.235%

+0.944%

+60 747.50

+60 Str. No. 982 Inv. = 747.00

Grade Of Special 4' Bottom Ditch Req'd, Rt. (Plotted At Datum)

See Previous Sheet For Ditching Lining, Rt. — +50

+25 — 455 Sys Sodding For Ditch Req'd, Rt. — +60

Superelevation Transition

+86 — Normal Crown = 2% — +66 — Superelevation Transition — +11

Full Superelevation s.e. = 4.4%

	514+00	515+00	516+00	517+00	518+00	519+00	520+00	521+00	522+00	523+00	524+00	525+00	526+00	527+00	528+00	529+00
Rt. EOP	754.60	755.47	757.19	757.19	757.52	757.70	757.88	757.81	758.08	757.31	575.06	756.81	756.56	756.31	756.06	755.81
Lt. EOP	753.90	755.18	756.37	757.19	575.77	758.31	758.86	758.86	758.61	758.36	758.11	757.86	757.61	757.36	757.11	756.86
	754.40	755.56	756.61	757.43	758.01	758.35	758.46	758.33	758.08	757.83	757.58	757.33	757.08	756.83	756.58	756.33

	529+00	530+00	531+00	532+00	533+00	534+00	535+00	536+00	537+00	538+00	539+00	540+00	541+00	542+00	543+00	544+00
Rt. EOP	755.56	755.31	755.06	754.81	854.56	854.31	754.06	753.81	753.56	753.31	753.14	753.17	753.42	753.88		
Lt. EOP	756.11	755.86	755.61	755.36	755.11	525.50	754.61	754.36	754.19	754.23	754.48	754.94				
	756.08	755.83	755.58	755.33	755.08	754.83	754.58	754.33	754.08	753.83	753.66	753.70	753.95	754.41	782.03	

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

William James Williams — REGISTERED — No. 10810125 — STATE OF INDIANA — PROFESSIONAL ENGINEER

DESIGNED: JB — DRAWN: ETD

CHECKED: RT — CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

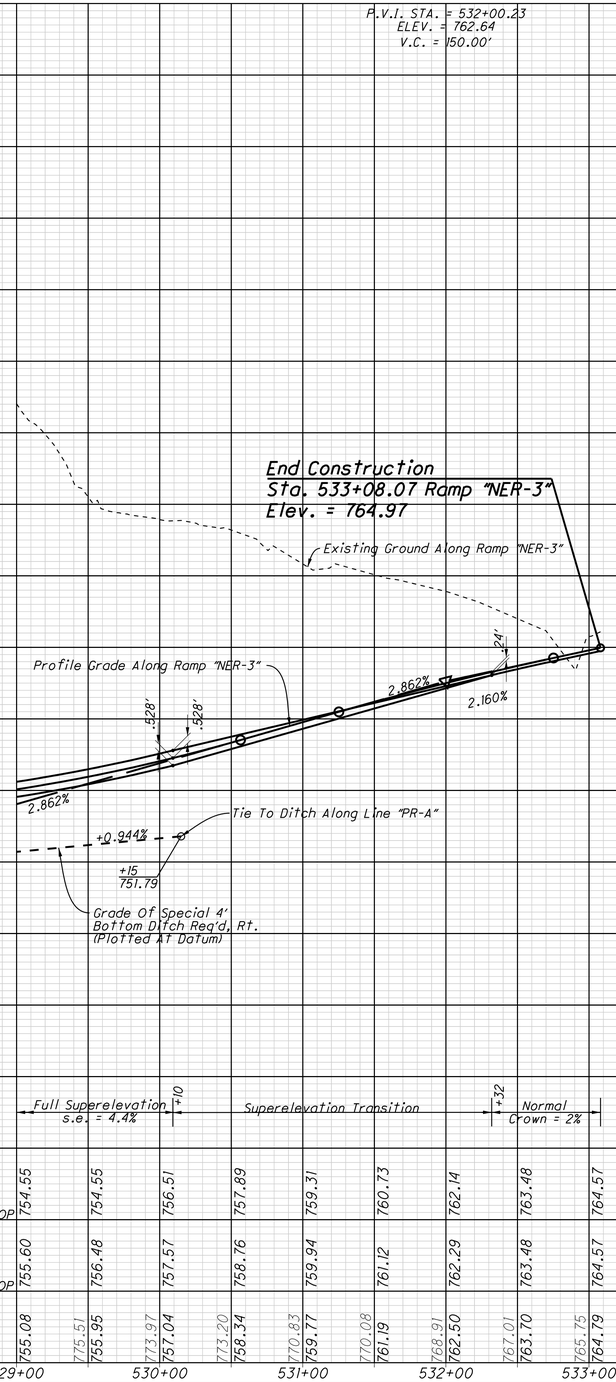
PROFILE SHEET
STA. 514+00 TO 529+00 "NER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-09	72 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:30:08 AM
LOCATION: N:\Projects\25627500\Y Drawings\V4 Trans\Transp\CaddWood\SYV_Plan and Profiles Sheets\25627500PSHT-S9_NER.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



Rt. EOP	754.55	754.55	756.51	757.89	759.31	760.73	762.14	763.48	764.57		
Lt. EOP	755.60	756.48	757.57	758.76	759.94	761.12	762.29	763.48	764.57		
	755.08	775.51 755.95	773.97 757.04	773.20 758.34	770.83 759.77	770.08 761.19	768.91 762.50	767.01 763.70	765.75 764.79		

William James Williams
No. 10810125
STATE OF INDIANA
REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD

CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 529+00 TO 534+00 "NER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-10	73 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:35:01 AM
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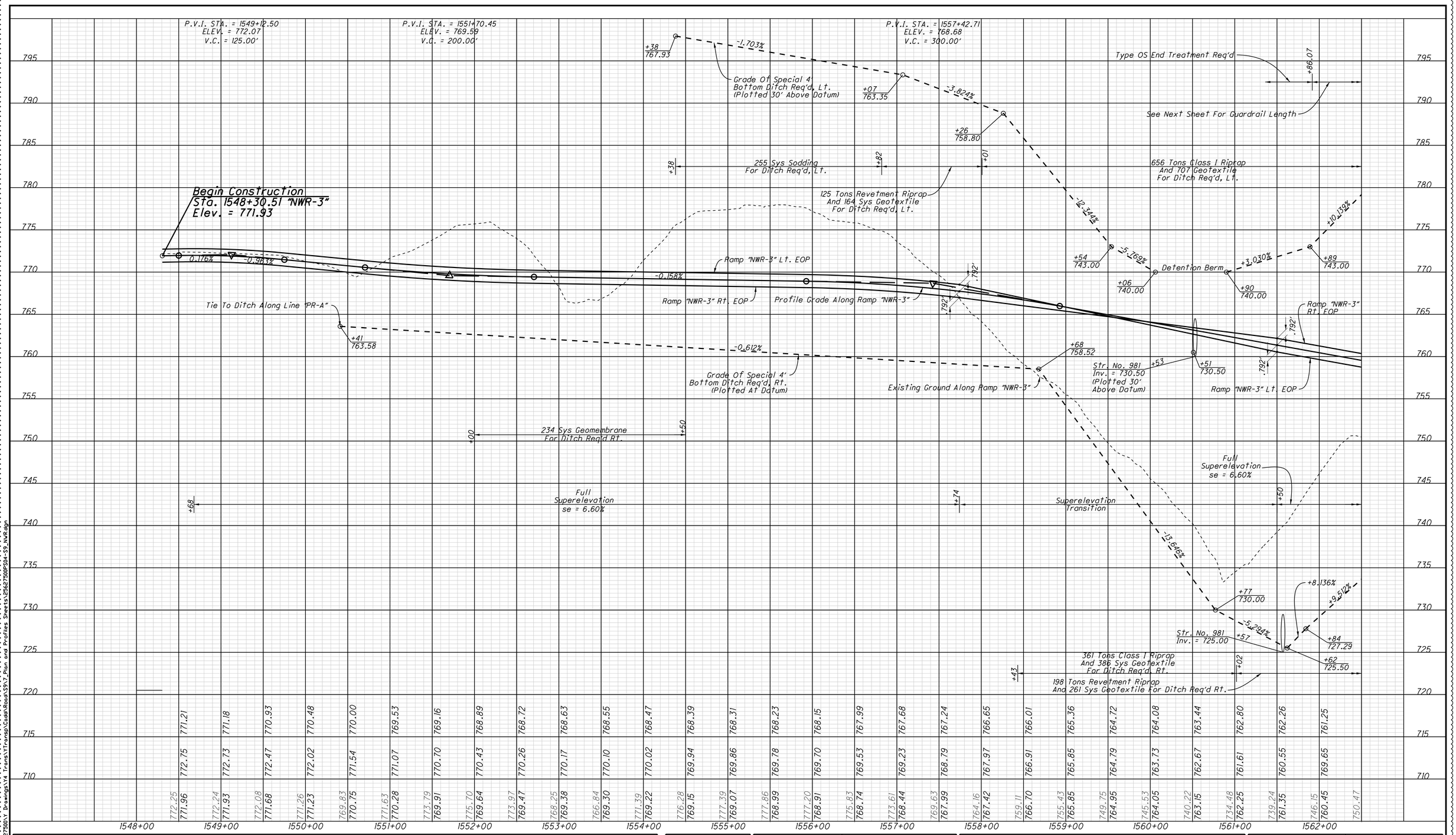
1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



RECOMMENDED FOR APPROVAL	William James Williams, Registered No. 10810125 State of Indiana, Professional Engineer	9/4/2012	
DESIGN ENGINEER		DATE	
DESIGNED: JB	DRAWN: ETD		
CHECKED: RT	CHECKED: WJW		

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1548+00 TO 1562+50 "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-11	74 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 09:56:02 AM
LOCATION: N:\Projects\25627500\V Drawings\V4 Trans\Transp\Cadd\Roads\SYJ_Plan and Profiles Sheets\25627500PS04-SYJ_NWR.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER 9/4/2012 DATE
DESIGNED: JB	DRAWN: ETD
CHECKED: RT	CHECKED: WJW

William James Williams REGISTERED No.10810125 STATE OF INDIANA PROFESSIONAL ENGINEER

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1562+50 TO 1577+50 "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	PS-12 / 75 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/3/2012
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\Y Transp\Cadd\Road\S9\7_Plan and Profiles Sheets\25627500PS05-S9_NWR.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

P.V.I. STA. = 1577+85.00
ELEV. = 761.66
V.C. = 350.00'

P.V.I. STA. = 1591+80.00
ELEV. = 740.67
V.C. = 300.00'

470 Tons Class I Riprap
And 502 Sys Geotextile
For Ditch Req'd, Lt.

+50

392 Sys Sodding
For Ditch Req'd, Lt.

+25

315 Tons Revetment Riprap
And 415 Sys Geotextile
For Ditch Req'd, Lt.

+26

200 Sys Sodding
For Ditch Req'd, Lt.

+17

+12

See Next Sheet
For Ditch Lining Req'd, Lt.

+25
756.59

+13.491%

Grade Of Special 4'
Bottom Ditch Req'd, Lt.
(Plotted 40' Above Datum)

-1.266%

+50
751.21

-3.741%

+2.741%

+38
744.85

+98
743.15

+1.371%

-2.755%

Grade Of Special 4'
Bottom Ditch Req'd, Median
(Plotted 40' Above Datum)

+00

Str. No. 988
Inv. = 841.16

+01
741.82

+92
740.56

-0.889%

+72
738.07

-2.442%

267 Sys Geomembrane
For Ditch Req'd, Lt.

+00

Special "V" Ditch Req'd, Median
(Plotted 40' Above Datum)

Existing Ground Along Ramp "NWR-3"

.792'

.792'

.72'

.72'

Profile Grade Along Ramp "NWR-3"

Ramp "NWR-3" Rt. EOP

-1.504%

Ramp "NWR-3" Lt. EOP

+73

838 Sys Sodding
For Ditch Req'd, Lt.

506.25' W-Beam Guardrail @ 6'-3" Spacing, Req'd Rt.

+44.81

Type OS End Treatment Req'd

Full
Superelevation
se = 6.60%

+48

Superelevation
Transition

+89

Tie To Ditch Along Line "SER-3"

Grade Of Special 4'
Bottom Ditch Req'd, Rt.
(Plotted At Datum)

+0.655%

Str. No. 988
Inv. = 740.61

+00

+0.582%

+98
741.18

+00
℄ = 740.61

+88
738.57

-1.675%

.72'

.72'

+89

Superelevation
Transition

+17

Full
Superelevation
se = 6.00%

+30

Superelevation
Transition

	1578+00	1579+00	1580+00	1581+00	1582+00	1583+00	1584+00	1585+00	1586+00	1587+00	1588+00	1589+00	1590+00	1591+00	1592+00
Rt. EOP	761.16	761.17	760.95	760.01	759.07	758.13	757.19	756.25	755.44	754.68	753.93	753.18	752.43	751.68	750.92	750.17	749.42	747.92	747.16	746.41	745.66	744.91	744.16	743.40	742.65	741.89	741.04	740.06	739.04
Lt. EOP	759.57	759.58	759.38	759.01	758.64	758.26	757.89	757.52	756.89	756.14	755.39	754.64	753.88	753.13	752.38	751.63	750.88	749.37	748.62	747.87	747.12	746.36	745.61	744.86	744.11	743.35	742.50	741.37	739.93
	760.36	745.45	760.37	747.91	760.18	753.79	759.78	757.12	759.17	760.90	758.42	764.81	757.67	768.16	756.92	771.33	756.16	768.91	755.41	766.25	754.66	764.66	753.91	767.03	753.16	773.31	752.40	781.14	751.65	786.86	750.90	789.53	750.15	790.10	749.40	789.19	748.64	781.90	747.89	774.07	747.14	768.07	746.39	757.85	745.64	752.77	744.88	748.33	744.13	747.07	743.38	745.59	742.62	744.17	741.77	742.59	740.81	741.14	739.75	739.60

DATE: 10/3/2012
TIME: 10:30:05 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\Transp\CodeRoad\S9Y_Plan and Profiles Sheets\25627500PS06-S9_NWR.dgn

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER — 9/4/2012 DATE
DESIGNED: JB	DRAWN: ETD
CHECKED: RT	CHECKED: WJW

James W. Williams — REGISTERED — No. 10810125 — STATE OF INDIANA — PROFESSIONAL ENGINEER

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1577+50 TO 1592+50 "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-13	76 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 — 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

William James Williams
REGISTERED
No.10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 9/4/2012
DESIGN ENGINEER DATE

DESIGNED:	JB	DRAWN:	ETD
CHECKED:	RT	CHECKED:	WJW

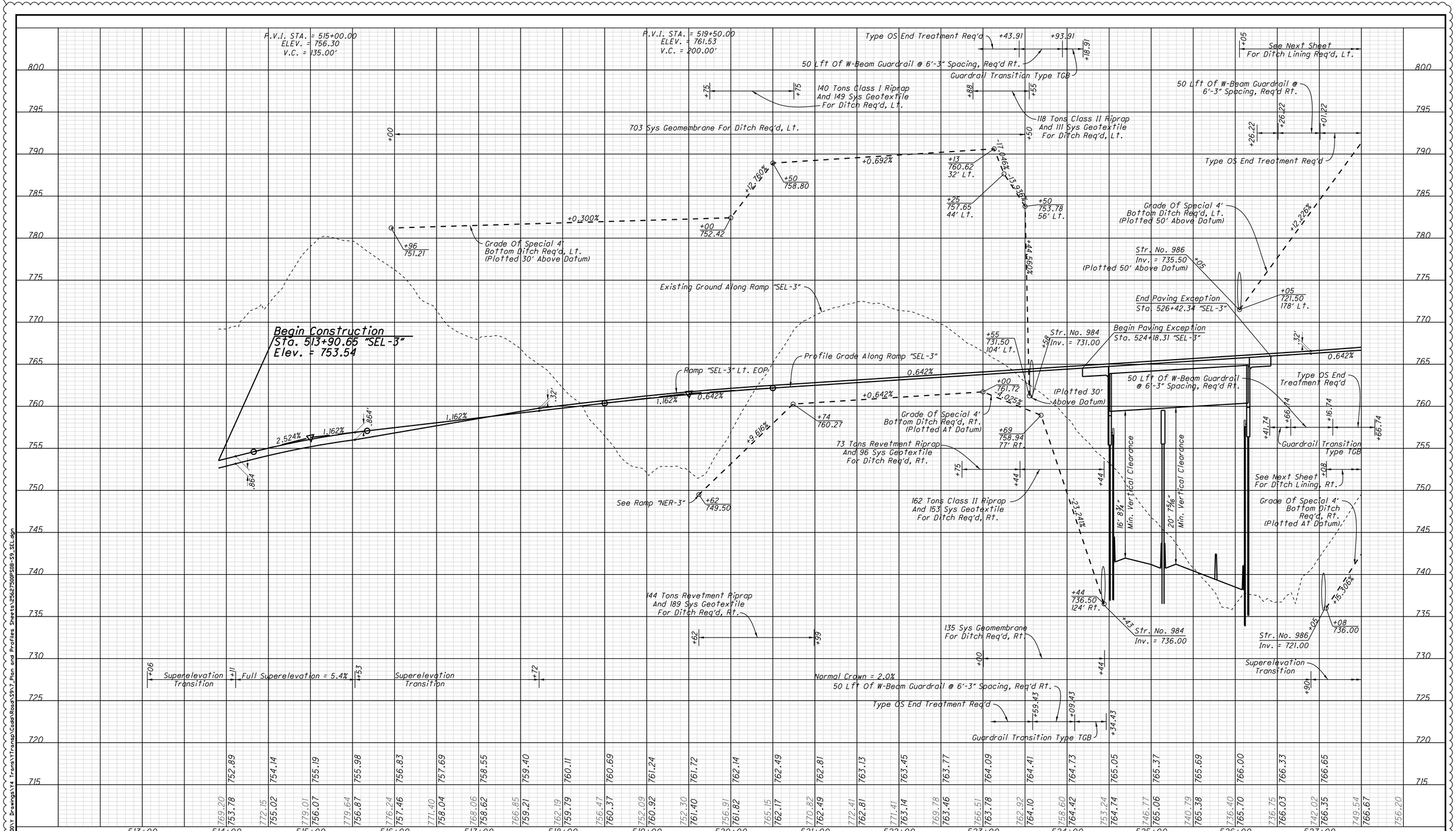
INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1592+50 TO 1599+00 "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 50'		
VERTICAL SCALE	DESIGNATION	
1" = 5'	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-14	77 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:35:06 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\7_Plan and Profiles Sheets\25627500PS07-S9_NWR.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



DATE: 10/2/2012
TIME: 10:30:07 AM
LOCATION: N:\Projects\25627500\Y Drawings\V4 Trans\Y Transp\Cadd\Roadway\SY_Plan and Profiles Sheets\25627500P508-SY_SEL.dgn

RECOMMENDED FOR APPROVAL	William J. Williams 9/4/2012 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE 1" = 50' / BRIDGE FILE
DESIGNED: JB	DRAWN: ETD	PROFILE SHEET STA. 513+00 TO 527+50 "SEL-3"	VERTICAL SCALE 1" = 5' / DESIGNATION 1006075
CHECKED: RT	CHECKED: WJW		SURVEY BOOK: ELECTRONIC / AERIAL; PAGE: PS-15; SHEETS: 78 of 173
			CONTRACT: IR-33742; PROJECT: 1006075

William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels
9/25/12 - Revised Guardrail

1

P.V.I. STA. = 531+00.00
ELEV. = 768.91
V.C. = 500.00'

P.V.I. STA. = 537+50.00
ELEV. = 749.83
V.C. = 200.00'

P.V.I. STA. = 542+53.81
ELEV. = 737.70
V.C. = 400.00'

+5.063%
+53
764.37
+90
761.18
41' Lt.
+12.456%
Grade Of Special 4'
Bottom Ditch Req'd, Lt.
(Plotted 40' Above Datum)
+58
742.45
99' Lt.
485 Tons Class I Riprap
And 519 Sys Geotextile
For Ditch Req'd, Lt.
+53
1.28'
0.642%
+61
761.00
+6.452%
-1.090%
-2.936%
+15.306%
+06
751.00
208 Tons Class II Riprap
And 193 Sys Geotextile
For Ditch Req'd, Rt.
+31
162 Tons Revetment Riprap
And 214 Sys Geotextile
For Ditch Req'd, Rt.
+86
Superelevation
Transition
+90
Lt. EOP
767.02
767.39
767.76
768.12
768.49
768.75
768.44
767.95
767.30
766.45
765.43
764.23
762.86
761.39
759.92
758.45
756.98
755.52
754.05
752.61
751.24
749.94
748.62
746.72
745.35
744.15
742.94
741.76
740.60
739.48
766.99
761.39
767.31
766.46
767.54
769.12
767.59
768.98
767.47
767.90
767.16
765.48
766.68
763.01
766.02
758.90
766.17
757.44
764.15
759.44
762.95
762.25
761.58
766.03
760.11
767.76
758.64
764.07
757.17
769.43
755.70
773.14
754.24
774.43
752.77
778.28
751.33
786.65
749.96
788.21
748.66
785.19
747.42
779.06
746.22
771.83
745.02
764.55
743.81
759.05
742.61
751.63
741.42
745.75
740.27
739.52
739.15
736.02
528+00
529+00
530+00
531+00
532+00
533+00
534+00
535+00
536+00
537+00
538+00
539+00
540+00
541+00
542+00
+49
250 Sys Sodding
For Ditch Req'd, Lt.
+88
+68
140 Tons Class II Riprap
And 128 Sys Geotextile
For Ditch Req'd, Lt.
+49
760.74
Grade Of Special 4'
Bottom Ditch Req'd, Lt.
(Plotted 20' Above Datum)
-2.932%
+13
753.00
-6.367%
+43
748.09
Tie To Ditch Along Line "PR-A"
Existing Ground Along Ramp "SEL-3"
68.75 Lft Of W-Beam
Guardrail @ 6'-3"
Spacing Req'd, Rt.
Type OS End
Treatment Req'd
+96.79
+65.92
+90.92
Guardrail Transition
Type TGB
Ramp "SEL-3" Over I-69
And Ramp "SEL-3"
Ramp "SEL-3" Lt. EOP
Profile Grade Along Ramp "SEL-3"
+28
757.00
Grade Of Special 4'
Bottom Ditch Req'd, Rt.
(Plotted At Datum)
1.28'
.32'
-3.711%
-2.407%
-2.407%
16' 8"
Min. Vertical Clearance
+67
737.00
+42
Tie To Ditch Along Line "PR-A"
Superelevation
Transition
+44
+12
Full Superelevation = 8.0%
Normal Crown = 2.0%
332 Sys Sodding
For Ditch Req'd, Rt.
+03
563 Tons Revetment Riprap
And 743 Sys Geotextile
For Ditch Req'd, Rt.

DATE: 10/3/2012
TIME: 10:50:08 AM
LOCATION: N:\Projects\25627500\Y Drawings\V4 Trans\Transp\Cadd\Road\SYV_Plan and Profiles Sheets\25627500PS09-S9_SEL.dgn

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 527+50 TO 542+50 "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-16	79 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

William James Williams
REGISTERED
No.10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED:	JB	DRAWN:	ETD
CHECKED:	RT	CHECKED:	WJW

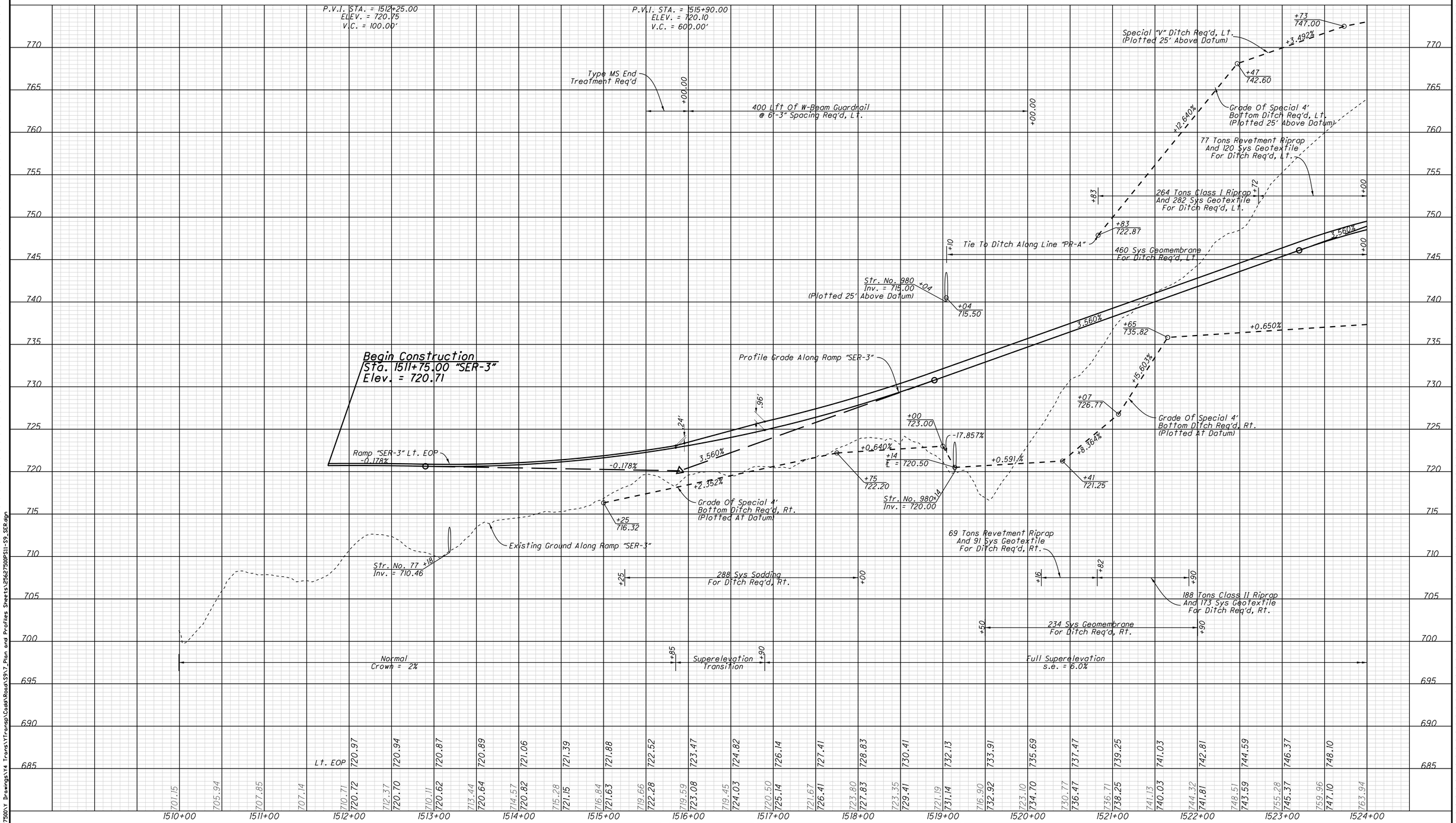
INDIANA
DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 542+50 TO 549+00 "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 50'		
VERTICAL SCALE	DESIGNATION	
1" = 5'	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-17	80 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:35:09 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\7_Plan and Profiles Sheets\25627500PS10_S9_SEL.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD

CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1510+00 TO 1524+00 "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-18	81 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:30:17 AM
LOCATION: N:\Projects\25627500\IY Drawings\V4 Trans\YTransp\CaddVoad\SYV_Plan and Profiles Sheets\25627500PS11-SYJ_SER.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

DATE: 10/3/2012
TIME: 10:30:12 AM
LOCATION: N:\Projects\25627500Y Drawings\Y4 Trans\Transp\Cadd\Roads\S9\Y_Plan and Profiles Sheets\25627500PS12-S9_SER.dgn

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER — 9/4/2012 DATE
DESIGNED: JB	DRAWN: ETD
CHECKED: RT	CHECKED: WJW

William James Williams — Registered — No. 10810125 — State of Indiana — Professional Engineer

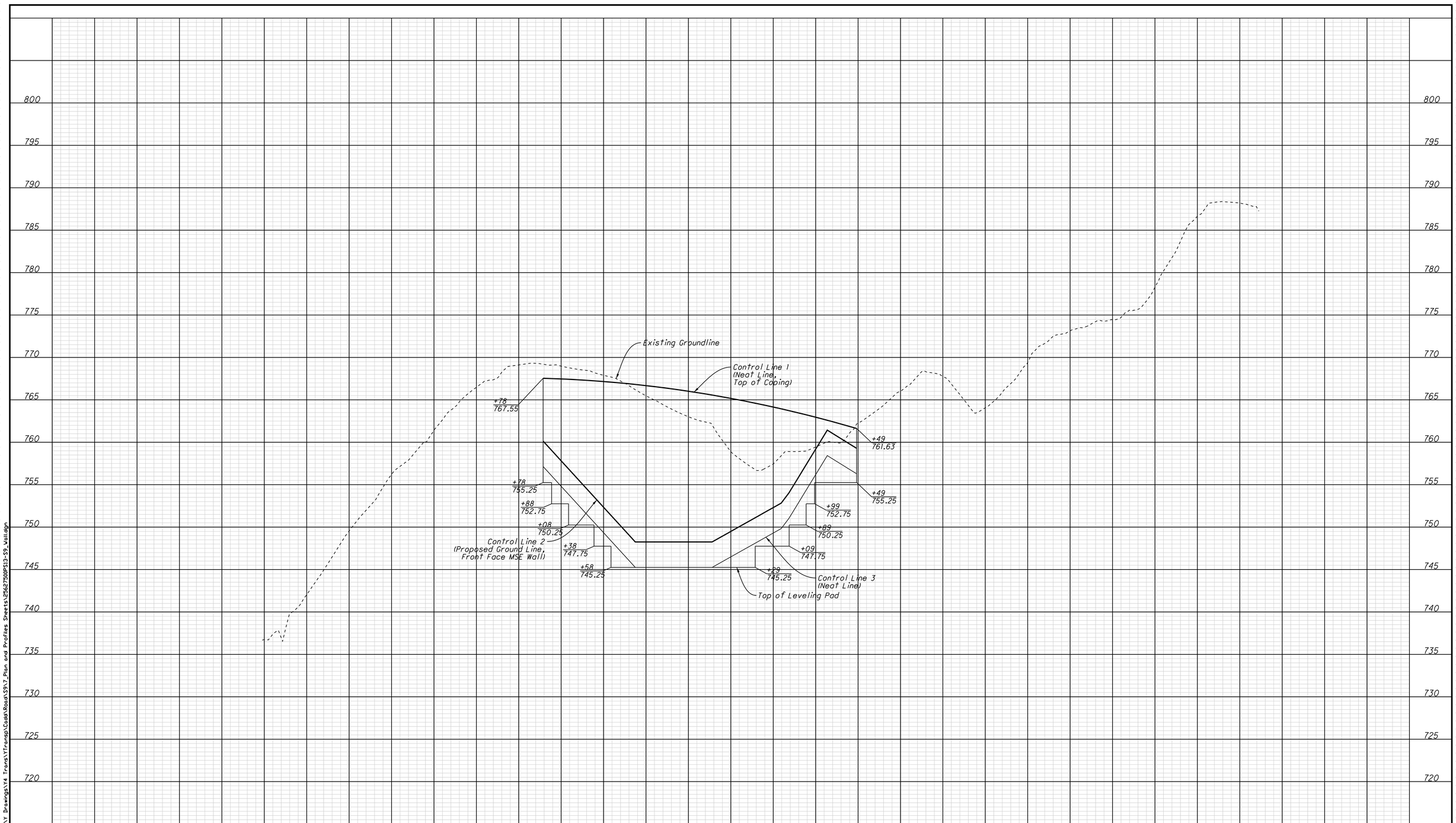
INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 1524+00 TO 1528+00 "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-19	82 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 — 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



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TIME: 10:30:18 AM
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William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
RAMP "SEL-3" WALL DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
1" = 5'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-20	83 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 9/25/12 - Updated Notes And Labels

Note:
All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "Bolin Lane" to be constructed.

LEGEND

B - Begin L.A. R/W

E - End L.A. R/W

SH Sinkhole

SPR Spring

Z See Typical Sections for Construction Materials

For Sinkhole Treatment Details See Sheet 100.

For Spring Box Details See Sheet 103.

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 9/6/2012
DESIGN ENGINEER DATE

DESIGNED: MDO	DRAWN: KCH
CHECKED: HCF	CHECKED: MDO

INDIANA
DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 12+00 TO STA. 28+00 "BOLIN LANE"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 50'	N/A	
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PP-14	84 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:42:14 AM
LOCATION: R:\10514\ - V-69 Section 4\Microstation\Sheet Files\Bolin PP.dgn

1 09/25/12 - Miscellaneous revisions

400 Lft of Concrete Gutter, Type A Required Left

260 Lft of Concrete Gutter, Type A Req'd. Rt.

91 Tons Ditch Revetment Riprap, over
124 Sys Geotextile with
55 Sys Ditch Sodding Req'd. Rt.

Guardrail End Treatment, Type OS

262.50 Lft of W-Beam Guardrail, 6'-3" Spa.
Required Left

Guardrail End Treatment, Type OS

Guardrail End Treatment, Type OS

262.50 Lft of W-Beam Guardrail, 6'-3" Spa.
Required Right

Guardrail End Treatment, Type OS

Str. No. 169-53-9711
Des. No. 1172105
SB I-69 o/ Bolin Lane

P.G. S.B. I-69

Line "A"

P.G. N.B. I-69

Str. No. 169-53-9710
Des. No. 1172104
NB I-69 o/ Bolin Lane

VPI Sta. 21+30.00
El. 685.41
L = 190'

End Construction
Sta. 22+00.00 "Bolin Lane"
El. 688.74

Begin Inc. Construction

End Inc. Construction
Sta. 22+25.00 "Bolin Lane"
El. 689.97

Existing Ground Line

El. 678.76

17'-4½" Min.
Vert. Clearance

+4.800%

Connect to Ex. V-Ditch

+9.087%

+25
689.9

+77
685.54

Transition Spec. 4' Bottom Ditch to
Ex. V-Ditch at Sta. 22+25 "BOLIN LANE"
Req'd Rt.
(Plotted 10' Below Datum)

Connect to Line "PR-GLENVIEW DRIVE"
Spec. 4' Bottom Ditch Rt.

VPI Sta. 18+00.00
El. 662.31
L = 140'

Profile Grade
along Line "Bolin Lane"

El. 667.21

+35

+70

+7.000%

Begin Construction
Sta. 18+00.00 "Bolin Lane"
El. 662.49

End Inc. Construction

Begin Inc. Construction
Sta. 17+30.00 "Bolin Lane"
El. 658.11

+6.000%

Str. 915
Pipe Invert El. 653.00

Str. 916
Pipe Invert El. 651.75
(Shown 10' below datum)

+00 +00 +00 +60 +52 +50 +30.00 +92.50 +01.50 +64.00

780 770 760 750 740 730 720 710 700 690 680 670 660 650 640 630 620 610 600

655.4 654.6 654.1 653.8 653.5 653.9 654.4 654.5 655.1 656.6 659.1 659.33 662.4 662.49 666.0 665.83 669.2 669.31 672.6 672.81 676.2 676.31 679.7 679.80 682.9 683.07 685.9 686.05 688.7 688.74 691.2 694.6 698.0 703.1 710.2 717.4 724.1 730.3 735.8 740.9 745.4 749.4

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 12+00 TO STA. 28+00 "BOLIN LANE"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PS-21	85 of 173
CONTRACT	PROJECT	
IR-33742	1 1006075	

DATE 10/1/2012
TIME 1042:15 AM
LOCATION R:\105141 - I-69 Section 4\Microstation\Sheet Files\Bolin PP-profile.dgn

1 09/25/12 - Miscellaneous revisions

Note:
All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

- Roadway Removal

LEGEND

B - Begin L.A. R/W
E - End L.A. R/W
SH Sinkhole
SPR Spring
Z See Typical Sections for Construction Materials

For Sinkhole Treatment Details See Sheet 100.
For Spring Box Details See Sheet 103.

PR-G = PR-Glenview Drive
PR-2-G = PR-2-Glenview Drive

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET
STA. 2+00 TO STA. 13+60.88 "PR-2-GLENVIEW DRIVE"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	SHEETS
ELECTRONIC / AERIAL	PP-15 86 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/1/2012 TIME: 10:42:16 AM LOCATION: R:\05141 - I-69 Section 4\Microstation\Sheet Files\GlenviewPP.dgn

1 09/25/12 - Miscellaneous revisions

DATE: 10/1/2012
TIME: 10:48:21 AM
LOCATION: R:\05141 - I-69 Section 4\Microstation\Sheet Files\Glenview PP-profile.dgn

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL ____ 9/6/2012
DESIGN ENGINEER DATE

DESIGNED:	MDO	DRAWN:	KCH
CHECKED:	HCF	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PROFILE SHEET
STA. 2+00 TO STA. 13+53.09 "PR-2-GLENVIEW DRIVE"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
1" = 10'	1006075
SURVEY BOOK	SHEETS
ELECTRONIC / AERIAL	PS-22 87 of 173
CONTRACT	PROJECT
IR-33742	1006075

△ 09/25/12 - Miscellaneous revisions

All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "Bolin Lane" to be constructed.

Do Not Disturb Trees

[1] See Page CD-05 for Approach Details

(Z) See Typical Section for Construction Materials

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO — DRAWN: KCH

CHECKED: HCF — CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 16+50 TO STA. 23+30 "BOLIN LANE"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	CD-01	93 of 173
CONTRACT		PROJECT
IR-33742		1006075

1 09/25/12 - Miscellaneous revisions

WILDLIFE CROSSING

290' L.A. R/W & A.C.L.

F.F.T.F. w/ GP-1 Posts

Const. Limits

LOT 4

290' L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

+40
290'

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

+58
290'

LOT 5

APP. ℄

BARRY & TERRE R. ELKINS
INST. #2006013017

LOT 3

LOT 2

Eq:
PI Sta. 4+83.28 "PR-GLENVIEW DRIVE"
Δ = 42°34'17" Rt.
PI Sta. 4+87.63 "PR-2-GLENVIEW DRIVE"
Δ = 42°34'17" Rt.

Line "Glenview Drive"

+56
EX R/W

Eq:
POT Sta. 4+70.91 "GLENVIEW DRIVE" =
POT Sta. 0+00.00 "WHEATON COURT"

Eq:
POC Sta. 4+72.14 "PR-2-GLENVIEW DRIVE" =
POT Sta. 0+11.88 "WHEATON COURT"

28 Tons Revetment Riprap
33 Sys Geotextiles Req'd.

(Asphalt)

Line "PR-2-GLENVIEW DRIVE"

PC Sta. 3+94.75 "PR-2-GLENVIEW DRIVE" =
POT Sta. 3+94.75 "Glenview Drive" =
OPOC Sta. 3+94.46 "PR-GLENVIEW DRIVE",
3.36' Lt.

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

L.A. R/W, A.C.L. & F.F.T.F. W/GP-1 Posts

Ex. R/W

+59
Ex R/W

PC Sta. 3+44.11 "PR-GLENVIEW DRIVE"=
POT Sta 3+44.11 "PR-2-GLENVIEW DRIVE"=
POT Sta 3+44.11 "Glenview Drive"

Houses & Building Removal, Parcel 02

Eq.:
Sta. 2+00.00 "GLENVIEW DRIVE" =
Sta. 2+00.00 "PR-GLENVIEW DRIVE" =
Sta. 2+00.00 "PR-2-GLENVIEW DRIVE"

Begin Construction
Sta. 2+00.00 "PR-2-GLENVIEW DRIVE"

Const. Limits

72°

108°

3-4½"

10'-3"
+44

45'-0"

40' R.

Line "PR-GLENVIEW DRIVE"

Eq:
Sta. 4+73.37 "PR-GLENVIEW DRIVE" =
Sta. 0+21.78 "WHEATON COURT"

Begin Construction
Sta. 0+22.40 "WHEATON COURT"

45'-3"

7-11"
+12

45'-4"

40' R.

PT Sta. 5+80.51
"PR-2-GLENVIEW DRIVE"

MATCH LINE STA. 6+00 "PR-2-GLENVIEW DRIVE"

5'-3"
+08 "WHEATON COURT"

Const. Limits

+04 "PR-GLENVIEW DRIVE"
60'

+52 "PR-GLENVIEW DRIVE"
EX R/W

+51 "WHEATON COURT"

LOT 44

LOT 6

Line "Glenview Drive"

Ex. R/W

Ex. Width

Ex. Width

N 14° 29' 56" W

+65 "PR-GLENVIEW DRIVE"
EX R/W

+65 "PR-GLENVIEW DRIVE"
42'

Const. Limits

R/W

+32 "PR-GLENVIEW DRIVE"
53'

+75 "PR-2-Glenview Drive",
Mod. Type "A" PRA Req'd.

+91 "PR-GLENVIEW DRIVE"
EX R/W

125 "Wheaton Court", Str. No. 950
34' of 12" Pipe w/ 2 P.E.S. req'd.

Houses & Building Removal, Parcel 42

End Construction
Sta. 1+51.00 "WHEATON COURT"

LOT 34

ROLLING GLEN
SUBDIVISION PHASE 3
PLAT CABINET C,
ENVELOPE 339

LOT 33

LOT 35

N 75° 30' 11" E

Line "WHEATON COURT"

SIDEWALK SPOT ELEVATIONS			
	STA.	OFFSET	ELEV.
①	5+50	95' Rt.	667.76
②	5+66	87' Rt.	667.74
③	5+90	71' Rt.	667.70
④	6+10	54' Rt.	667.67

CURVE DATA
PI = 4+92.15 "PR-GLENVIEW DRIVE"
Δ = 42° 34' 17" (RT)
R = 380.00'
T = 148.05'
L = 282.34'
E = 27.82'

CURVE DATA
PI = 4+92.15 "PR-2-GLENVIEW DRIVE"
Δ = 42° 34' 17" (RT)
R = 250.00'
T = 97.40'
L = 185.75'
E = 18.30'
SE = N.C.

Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County

All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "PR-2-GLENVIEW DRIVE" to be constructed.

Do Not Disturb Trees

Ⓩ See Typical Section for Construction Materials Ⓕ Concrete Sidewalk (4")

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

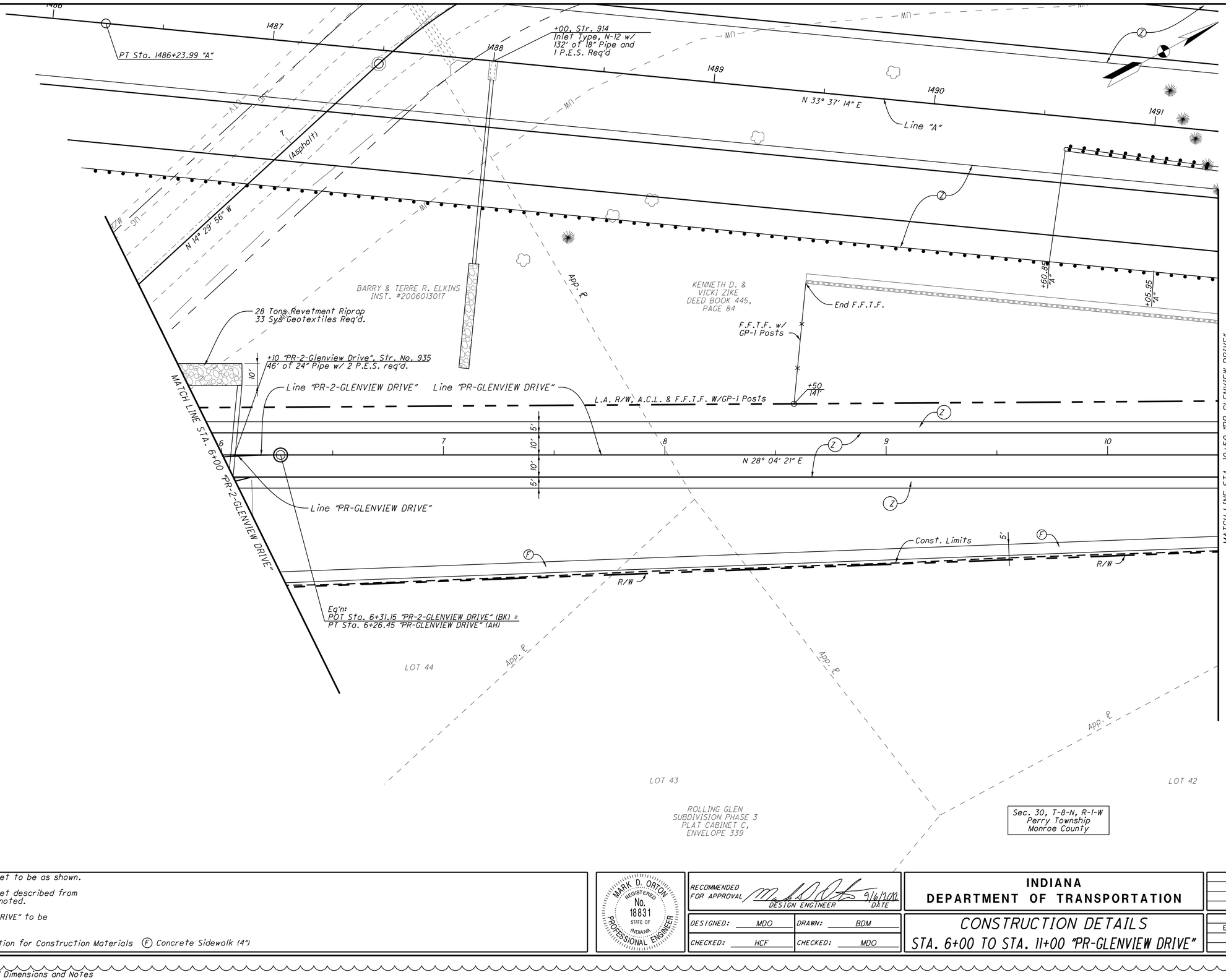
CONSTRUCTION DETAILS
STA. 0+00 TO STA. 6+00 "PR-GLENVIEW DRIVE"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	CD-03	94 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 1:04:19 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275ORD_CD03_S9.dgn

1 09/25/12 - Added Dimensions and Notes



All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "PR-GLENVIEW DRIVE" to be constructed.

(Z) See Typical Section for Construction Materials (F) Concrete Sidewalk (4")

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO DRAWN: BDM
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 6+00 TO STA. 11+00 "PR-GLENVIEW DRIVE"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	CD-04 — 95 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE 10/1/2012
TIME 10:42:26 AM
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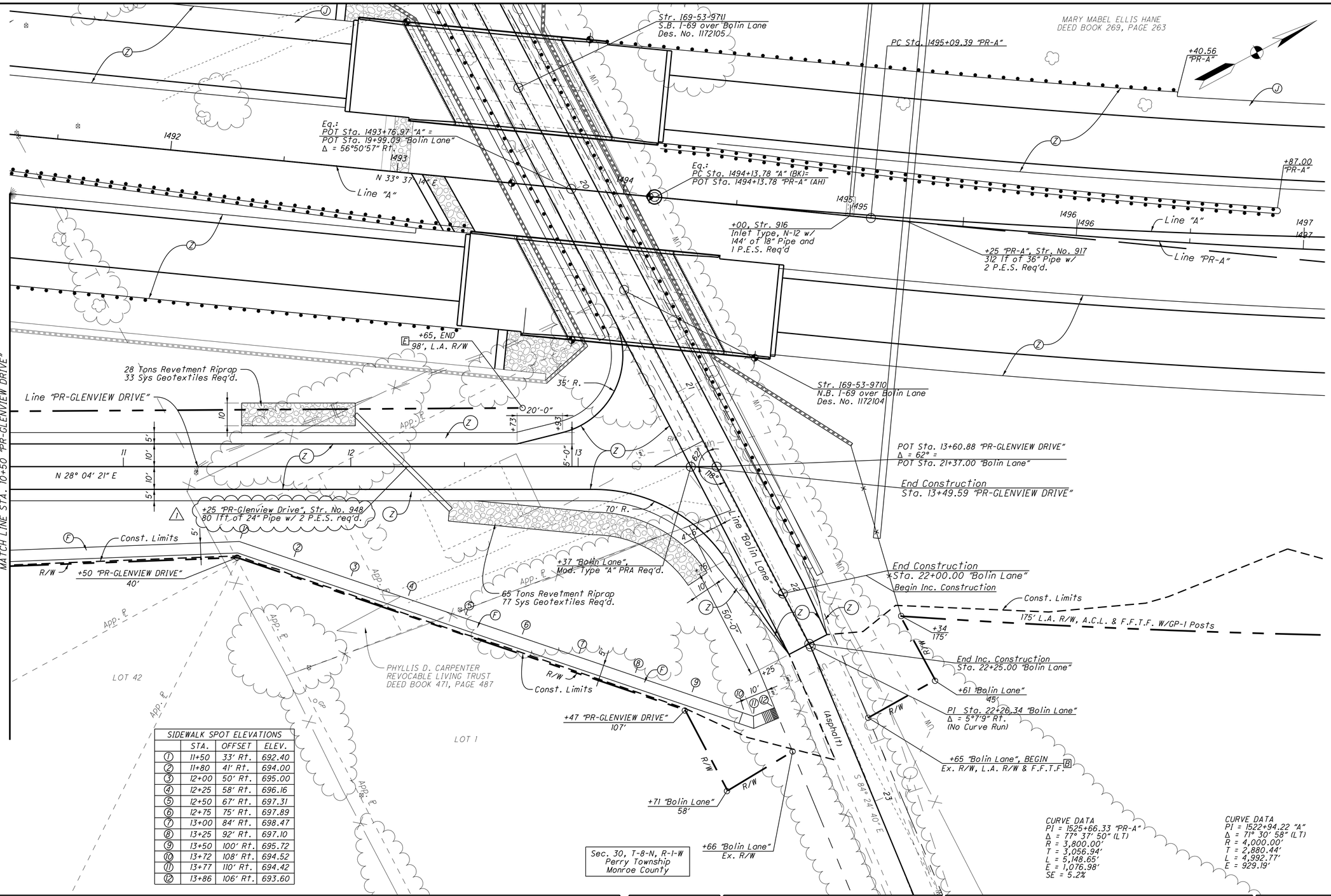
1 09/25/12 - Added Dimensions and Notes



SIDEWALK SPOT ELEVATIONS			
	STA.	OFFSET	ELEV.
①	11+50	33' Rt.	692.40
②	11+80	41' Rt.	694.00
③	12+00	50' Rt.	695.00
④	12+25	58' Rt.	696.16
⑤	12+50	67' Rt.	697.31
⑥	12+75	75' Rt.	697.89
⑦	13+00	84' Rt.	698.47
⑧	13+25	92' Rt.	697.10
⑨	13+50	100' Rt.	695.72
⑩	13+72	108' Rt.	694.52
⑪	13+77	110' Rt.	694.42
⑫	13+86	106' Rt.	693.60

Sec. 30, T-8-N, R-1-W
Perry Township
Monroe County

CURVE DATA
PI = 1525+66.33 "PR-A"
Δ = 77° 37' 50" (LT)
R = 3,800.00'
T = 3,056.94'
L = 5,148.65'
E = 1,076.98'
SE = 5.2%

CURVE DATA
PI = 1522+94.22 "A"
Δ = 71° 30' 58" (LT)
R = 4,000.00'
T = 2,880.44'
L = 4,992.77'
E = 929.19'

All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "A" except as noted.

Line "PR-GLENVIEW DRIVE" to be constructed.

Ⓩ See Typical Section for Construction Materials Ⓕ Concrete Sidewalk (4")

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO DRAWN: BDM
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

CONSTRUCTION DETAILS
STA. 10+50 TO STA. 13+53.09 "PR-GLENVIEW DRIVE"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	CD-05	96 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/4/2012
TIME: 10:42:21 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256279DRD_CD05_S9.dgn

⚠1 09/25/12 - Revised Pipe Information, Added Dimensions and Notes

CURVE DATA
PI = 1553+30.60 "PR-A"
Δ = 4° 28' 54" (RT)
R = 17,188.15'
T = 672.56'
L = 1,344.43'
E = 13.15'
S.E. = N.C.

Ex. R/W

Ex. R/W

Const. Limits

END PROJECT 1006075
Sta. 1553+25.00 "PR-A"

Begin Incidental ~~Construction~~
Sta. 1553+25.00 "PR-A"

Eq.:
Sta. 1554+30.00 "PR-A" (BK) =
Sta. 216+18.47 "SR 37" (AH)

Line "THAT ROAD"

+50, Str. 930
Inlet, Type H-5 w/
80' of 15" Pipe and
1 P.E.S. Req'd

163' (800 Syd PCCP Surface Milling)

Impact Attenuator
Type R2, W1, TL-3

+88 "SR 37"

N 68° 45' 48" E

Eq.:
Sta. 217+00.00 "SR 37" =
Sta. 49+73.99 "THAT ROAD"

End Incidental Construction
Sta. 217+60 "SR 37"

10'
48'
14'
2'-6"
14'
48'
8'

(K1)
(O)
(Z)

¾" Sawcut

I-69 Southbound

I-69 Northbound

1551 213
1552 214
1553 215
1554 216
217
218
219

Line "SR 37" and Line "PR-A"

Line "SR 37"

Remove Existing Crossover

106' (592 Syd PCCP Surface Milling)

+20 "SR 37"

40' R.

+00, Str. 931
Inlet, Type H-5 w/
78' of 15" Pipe and
1 P.E.S. Req'd

+02 "That Road"

Line "A"

Const. Limits

1555

N 37° 53' 44" W

PC Sta. 51+35.61 "THAT ROAD"

Ex. R/W

Ex. R/W

CURVE DATA
PI = 208+20.77 "SR 37"
Δ = 9° 09' 15" (RT)
R = 17,188.74'
T = 1,376.05'
L = 2,746.25'
E = 54.99'

CURVE DATA
PI = 52+32.27 "THAT ROAD"
Δ = 53° 41' 30" (RT)
R = 190.99'
T = 96.67'
L = 178.98'
E = 23.07'

All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "PR-A" except as noted.

(Z) See Typical Section for Construction Materials

(K1) 165 lb/yd2 HMA, Type B, Surface, on 275 lb/yd2 HMA, Type B, Intermediate, on 660 lb/yd2 HMA, Type B, Base, on Subgrade Treatment (Type IC)

(O) 165 lb/yd2 HMA, Type B, Surface

MARK D. ORION
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STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
9/6/2012
DATE

DESIGNED: MDO
DRAWN: BDM
CHECKED: HCF
CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

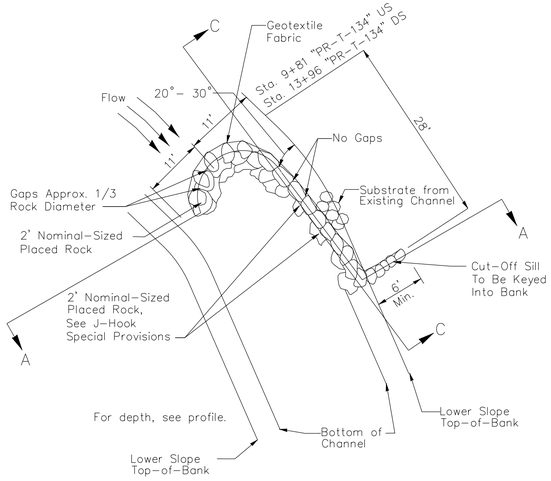
CONSTRUCTION DETAILS
I-69, S.R. 37, AND THAT ROAD

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

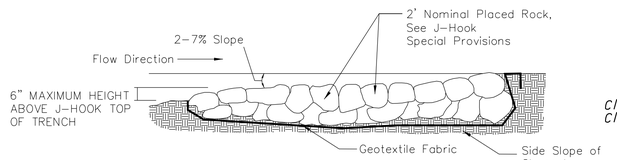
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	CD-06	98 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

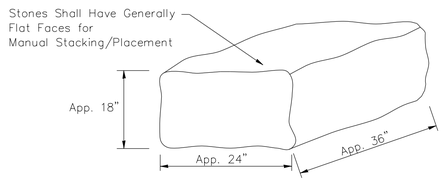
DATE: 09/26/2012
TIME: 10:42:22 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275GORD_CD06_S9.dgn



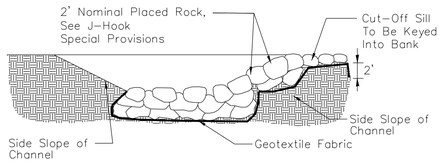
J–HOOK VANE DETAIL–PLAN VIEW
NOT TO SCALE



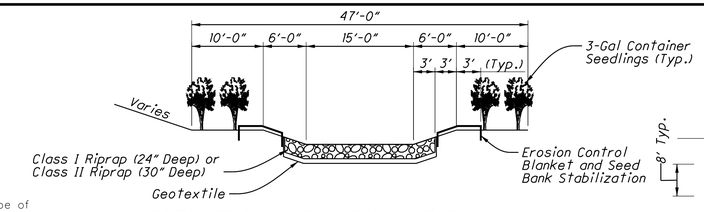
C–C
J–HOOK DETAIL–PROFILE VIEW
NOT TO SCALE



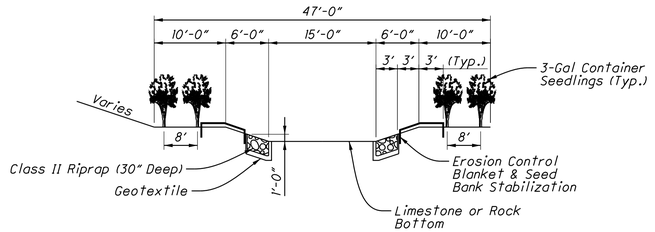
J–HOOK
2' NOMINAL PLACED ROCK DETAIL
NOT TO SCALE



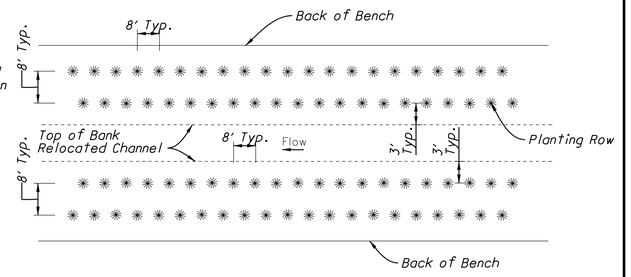
A–A
J–HOOK VANE DETAIL–CROSS SECTION VIEW
NOT TO SCALE



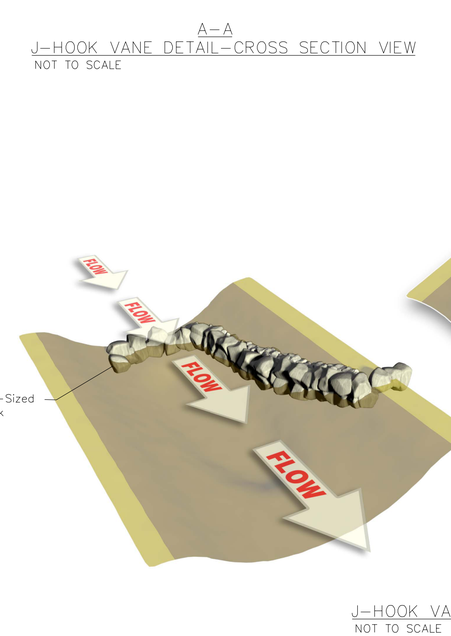
PROPOSED CHANNEL TYPICAL SECTION
(No Durable Rock within Channel)
Not to Scale
Class I Riprap (24" Deep) Sta. 8+94.88 "PR-T-134" to Sta. 13+75.58 "PR-T-134"
Class II Riprap (30" Deep) Sta. 13+75.58 "PR-T-134" to Sta. 14+75.58 "PR-T-134"



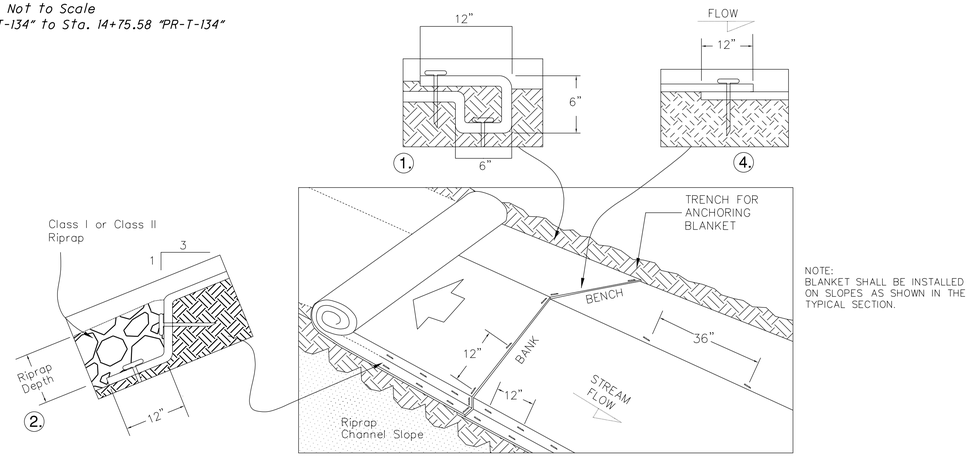
PROPOSED CHANNEL TYPICAL SECTION
(Durable Rock within Channel
Not to Scale
Sta. 8+94.88 "PR-T-134" to Sta. 14+75.58 "PR-T-134"



PLANTING DETAIL
Not to Scale
Two Rows of 3-Gal Container Seedlings shall be planted on both sides of the realigned channel.



J–HOOK VANE DETAIL
NOT TO SCALE



NOTE:
BLANKET SHALL BE INSTALLED ON SLOPES AS SHOWN IN THE TYPICAL SECTION.

1. BEGIN AT THE DOWNSTREAM END OF THE REALIGNED CHANNEL. ROLL THE BLANKET FROM DOWNSTREAM TO UPSTREAM. ANCHOR THE UP-SLOPE SIDE OF THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAKING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION BACK OVER SEED AND COMPACTED SOIL. SECURE THE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
2. THE EDGE OF THE BLANKET AT UPPER ELEVATION OF CL. I OR CL. II RIPRAP SHALL BE ANCHORED BY PLACING THE BLANKET IN A TRENCH KEYED INTO THE PROPOSED CHANNEL SLOPE AS SHOWN. ANCHOR THE BLANKET WITH A ROW OF STAKES SPACED APPROXIMATELY 12" APART ON THE SIDE AND BOTTOM OF THE TRENCH. BACKFILL WITH RIPRAP AFTER STAKING. THIS MAY BE BEST ACCOMPLISHED BY INSTALLING THE BLANKET IMMEDIATELY AFTER OVER-EXCAVATION OF THE CONSTRUCTED CHANNEL AND PRIOR TO PLACEMENT OF THE RIPRAP.
3. ALL BLANKETS SHALL BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN ABOVE. STAKING SHALL BE A MAXIMUM OF 12" APART ALONG ALL EDGES AND OVERLAPS AND A MAXIMUM OF 36" APART THROUGHOUT THE REMAINDER OF THE BLANKET.
4. THE EDGES OF ALL HORIZONTAL AND VERTICAL SEAMS SHALL BE STAPLED WITH APPROXIMATELY 8" - 12" OVERLAP. NOTE: *SEAM OVERLAP SHALL BE SHINGLED ACCORDING TO PREDOMINANT EROSIVE ACTION (EDGE OF UPSTREAM/UPSLOPE BLANKET OVER TOP OF THE DOWNSTREAM/DOWNSLOPE BLANKET).
5. WHERE THE STREAM CHANNEL IS CONSTRUCTED WITH A FLAT BENCH, THE BLANKET SHALL EXTEND ONTO, AND SHALL BE ANCHORED WITHIN A TRENCH DUG ON THE BENCH.
6. WHERE RIPRAP IS SPECIFIED ADJACENT TO THE BLANKET (e.g. ROADSIDE DITCH OUTFALLS), THE RIPRAP SHALL BE PLACED OVER THE BLANKET FOLLOWING STAKING.
NOTE: *IN LOOSE SOIL CONDITIONS, THE USE OF STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKET.

JANETTE WAGNER FULKERSON
REGISTERED
No. PE60870080
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/25/2012 DATE

DESIGNED: JWF | DRAWN: BDM
CHECKED: MDO | CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
J-HOOK & EROSION CONTROL BLANKET DETAILS

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MISC-05	99 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:10:11 AM
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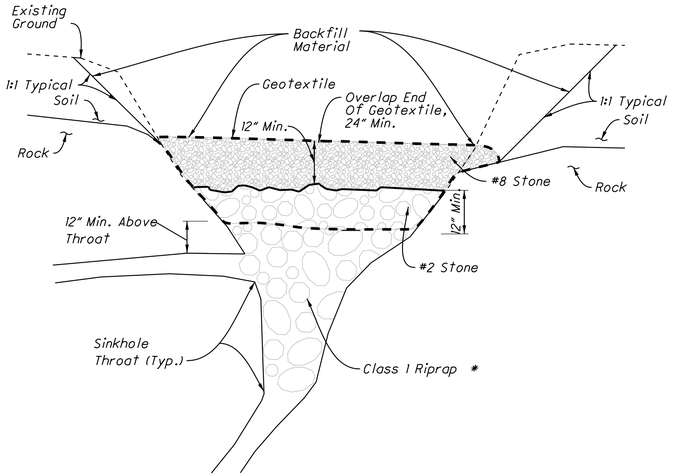
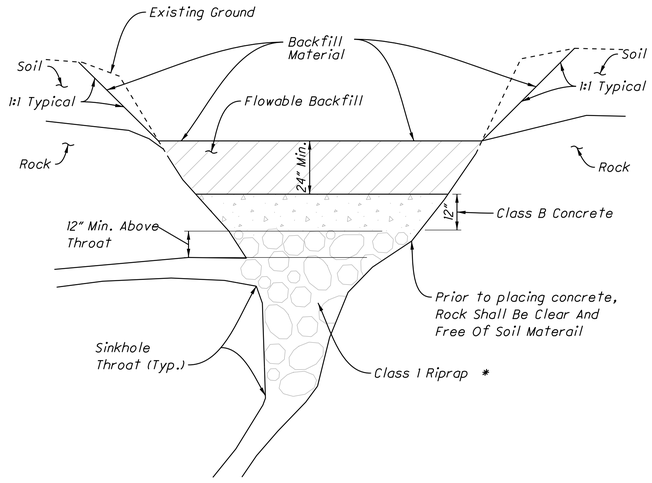
1 9/25/12 - Additional sheet



Sinkhole Repair - Aggregate Cap
N.T.S.



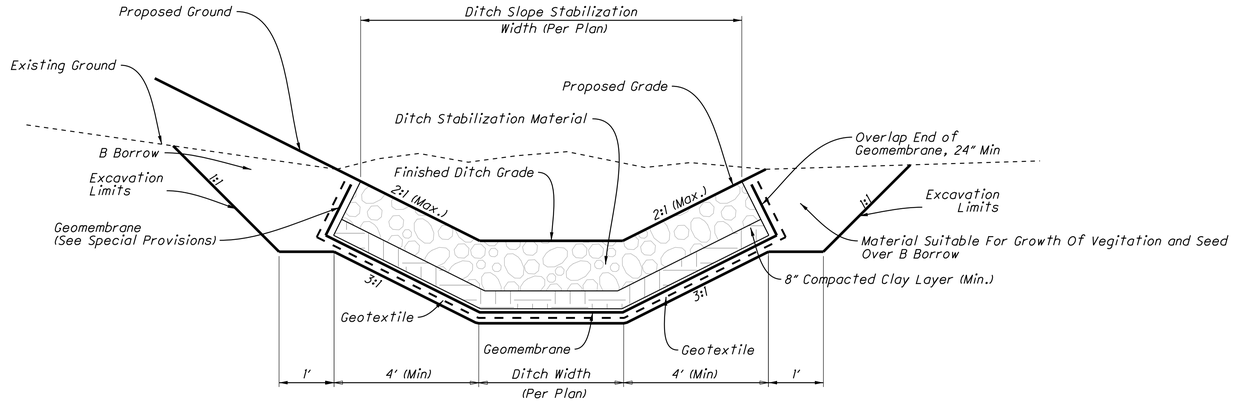
Sinkhole Repair - Concrete Cap
N.T.S.

* If During Exploratory Excavation, Sinkhole Throat Is Determined To Be Greater Than 36" Class II Riprap, Shall Be Used In Liew Of Class 1 Riprap

⚠1

DITCH LINER (GEOMEMBRANE)								
Limits					Offset	Length (ft)	Width (ft)	SYS
1475+30	"A"	to	1477+30	"A"	RT	200	4	365
1480+75	"A"	to	1484+40	"A"	LT	365	4	666
1496+50	"PR-A"	to	1498+50	"PR-A"	LT	200	4	365
1508+00	"PR-A"	to	1512+50	"PR-A"	RT	450	4	822
1518+85	"PR-A"	to	1521+00	"PR-A"	RT	215	4	1520 *
1523+25	"PR-A"	to	1524+70	"PR-A"	RT	145	4	265 *
1526+85	"PR-A"	to	1527+50	"PR-A"	RT	65	4	119 *
1533+25	"PR-A"	to	1538+10	"PR-A"	LT	485	4	886 *
1552+00	"NWR-3"	to	1554+50	"NWR-3"	RT	250	0	234
1558+00	"NWR-3"	to	1561+00	"NWR-3"	RT	300	0	
1576+60	"NWR-3"	to	1577+42	"NWR-3"	RT	82	0	77
1576+15	"NWR-3"	to	1579+00	"NWR-3"	LT	285	0	267
523+00	"SEL-3"	to	524+44	"SEL-3"	RT	144	0	135
516+00	"SEL-3"	to	523+50	"SEL-3"	LT	750	0	703
1519+10	"SER-3"	to	1524+00	"SER-3"	LT	490	0	460
1519+50	"SER-3"	to	1522+00	"SER-3"	RT	250	0	234
		to						

* = Attach to Invert of Structure per Manufacturer's Recommendation



Ditch Liner

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

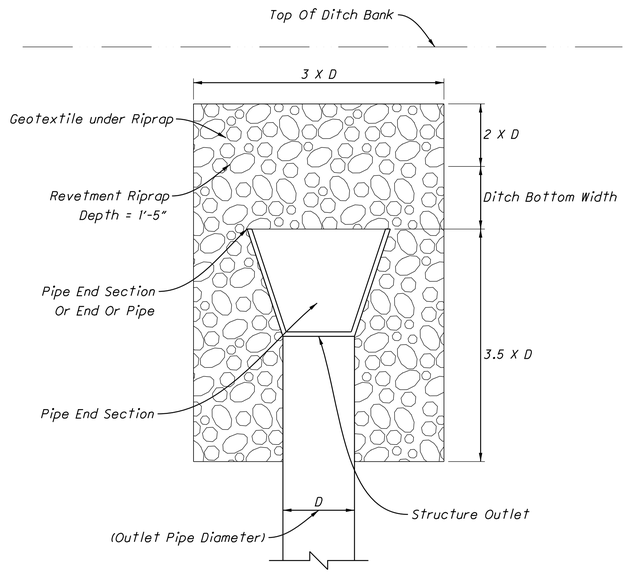
MISCELLANEOUS DETAILS
KARST DETAILS

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	N/A
VERTICAL SCALE	DESIGNATION
	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MD-02	100 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:42:23 AM
LOCATION: R:\10541 - I-69 Section 4\Microstation\Sheet Files\2562750RD_MD02_N2.dgn

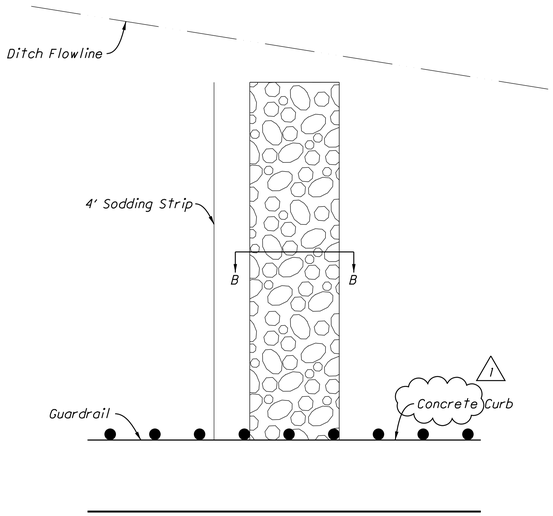
⚠1 09/25/12 - Revised Geomembrane Table



Detail Of Riprap @ Str. Outlet Str. Perpendicular To Ditch

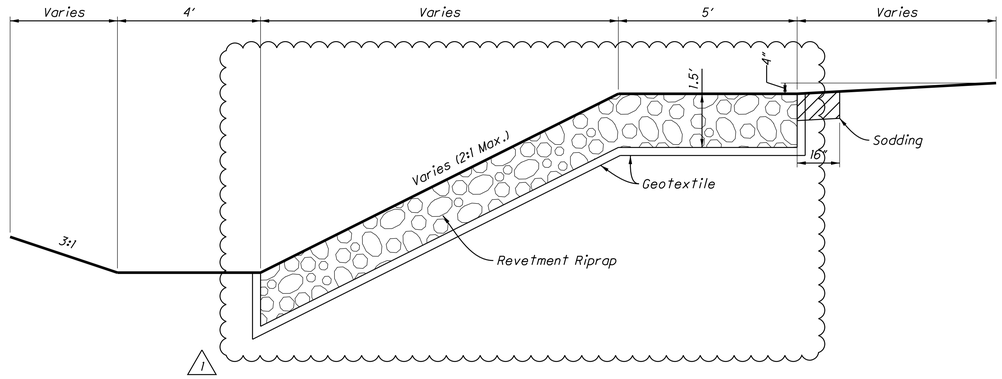
N.T.S.

D = Diameter of Circular Pipe In Feet
D = Height Of Deformed Pipe In Feet



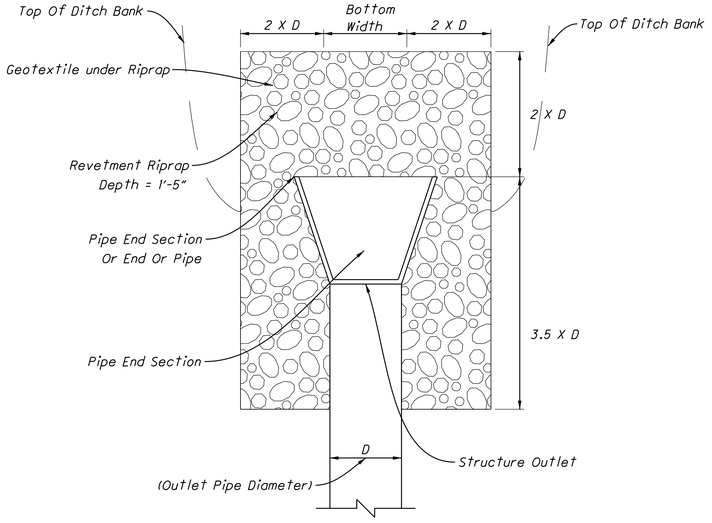
Riprap Drainage Turnout Plan View

N.T.S.



Ditch Backslope Protection

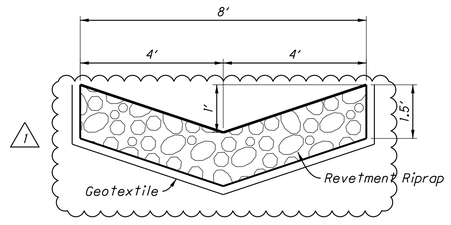
N.T.S.



Detail Of Riprap @ Str. Outlet Str. Parallel To Ditch

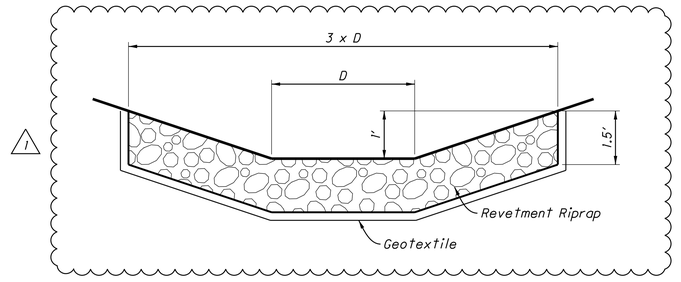
N.T.S.

D = Diameter of Circular Pipe In Feet
D = Height Of Deformed Pipe In Feet



Riprap Drainage Turnout Section B-B

N.T.S.



Detail Of Riprap @ Str. Outlet Str. Perpendicular To Ditch

N.T.S.

D = Diameter of Circular Pipe In Feet
D = Height Of Deformed Pipe In Feet

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: BDM
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
RIPRAP DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MD-03	101 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

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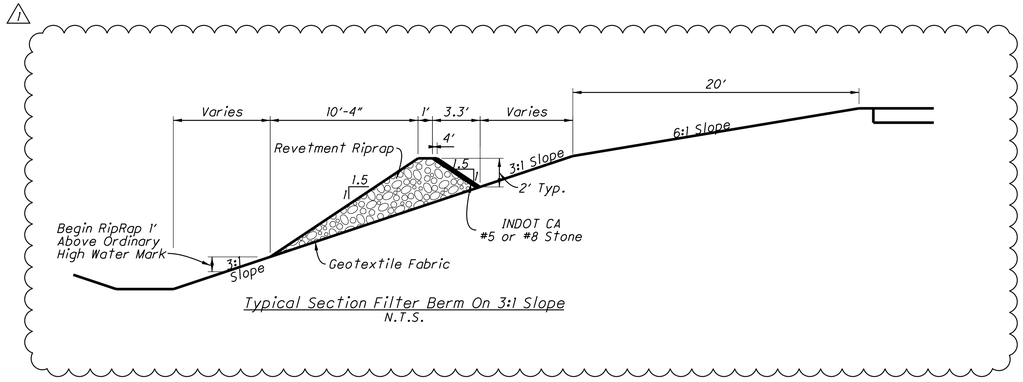
1 09/25/12 - Miscellaneous



Typical Section Filter Berm On 3:1 Slope
N.T.S.

30"

16"

KARST
FEATURE

6" U.C. "B" Series

4" U.C. "B" Series

SP-1

N.T.S.

Black Legend on White Background
1.00" Radius
0.50" Border
Area = 3.33 Sft

30"

16"

NOTICE
Waters of U.S.

6" U.C. "B" Series

4" U.C. "B" Series
3" U.C. "B" Series (40% Spacing)
4" U.C. "B" Series (40% Spacing)

SP-2

N.T.S.

Black Legend on White Background
1.00" Radius
0.50" Border
Area = 3.33 Sft

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
9/6/2012
DATE

DESIGNED: MDO
DRAWN: BDM
CHECKED: HCF
CHECKED: MDO

INDIANA
DEPARTMENT OF TRANSPORTATION

MISCELLANEOUS DETAILS
FILTER BERM & SIGN DETAILS

HORIZONTAL SCALE	BRIDGE FILE
As Shown	N/A
VERTICAL SCALE	DESIGNATION
	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MD-04	102 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
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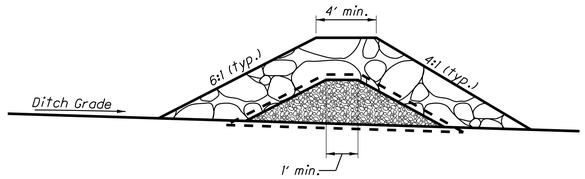
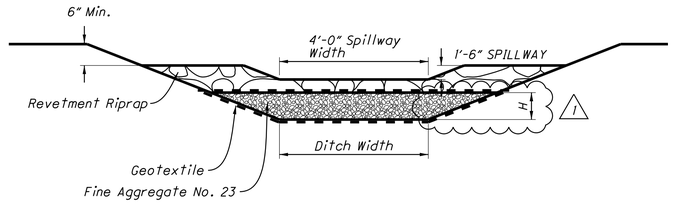
1 09/25/12 - Rock Filter Berm detail revised



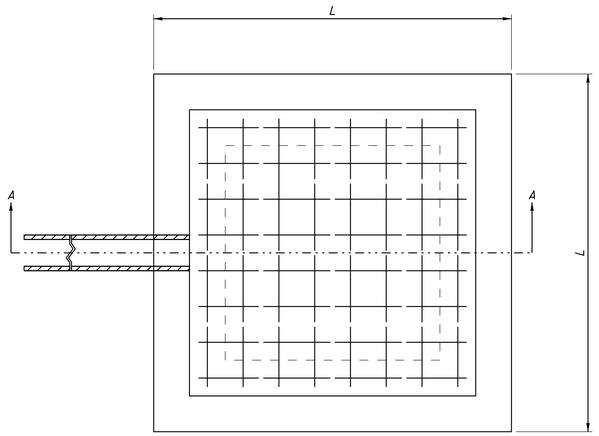
SPILL CONTAINMENT DETAIL
PROFILE VIEW
Scale: N.T.S.

Spill Containment Location Table

Station	LEFT	RIGHT	CONTAINMENT DAM HEIGHT (FT)	DITCH WITDTH (FT)	BERM HEIGHT
			H	W	ELEV
Line "PR-A"					
1464+00		X	6.4'	10'	619.00
1464+00	X		8.5'	10'	N/A
1468+50		X	6.6'	4'	621.50
1468+50	X		5.5'	4'	619.50



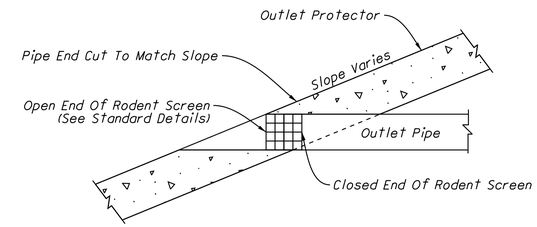
SPILL CONTAINMENT DETAIL
SECTION A-A
Scale: N.T.S.



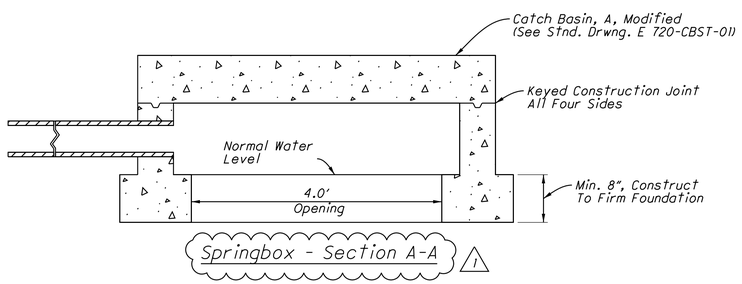
Springbox - Plan 1

SPRINGBOX TABLE						
Feature	Station	Offset	Flow Rate (gpm)	Water Elev. (ft)	Pipe Size (in)	Length (ft)
4-1520	1465+30	45' RT.	10.00	679	12	64'
4-0085	1498+50	145' LT.	1.00	691	12	56'
4-0003	1510+40	105' LT.	1.00	701	12	104'
4-1530	1518+55	150' LT.	1.00	700	12	48'
4-1457	1522+85	35' LT.	5.00	722	12	56'
4-1458	1524+50	130' LT	5.00	724	12	24'
4-1769	1525+55	50' LT.	N/A	733	12	38'

1



Outlet Detail



Springbox - Section A-A 1

Notes

This Item may Be Precast Or Cast In Place

All Concrete To Be Class A3 If Cast In Place.

Cost Of Wire Mesh Shield At Outfall End Of Pipe Is To Be Included In Price For Pipe.

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

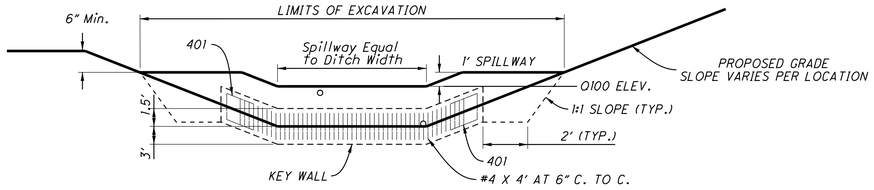
MISCELLANEOUS DETAILS
SPILL CONTAINMENT & SPRINGBOX DETAILS

HORIZONTAL SCALE	BRIDGE FILE
N.T.S.	N/A
VERTICAL SCALE	DESIGNATION
	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MD-05	103 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

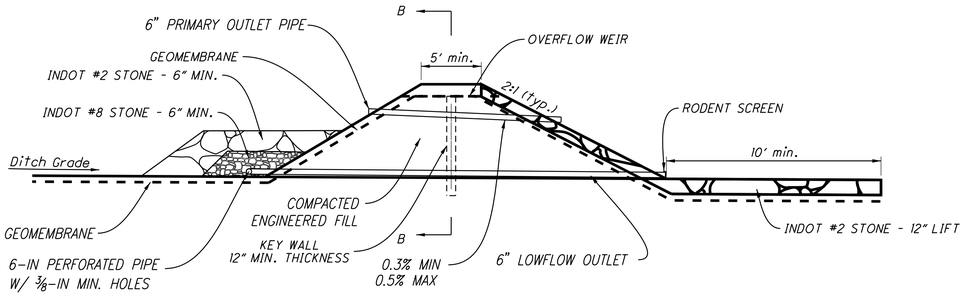
DATE: 10/1/2012
TIME: 10:42:27 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\2562750ORD_MD05_AE.dgn

1 09/25/12 - Table and note revisions



STORMWATER DETENTION BERM DETAIL

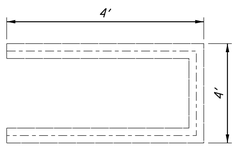
Not to Scale



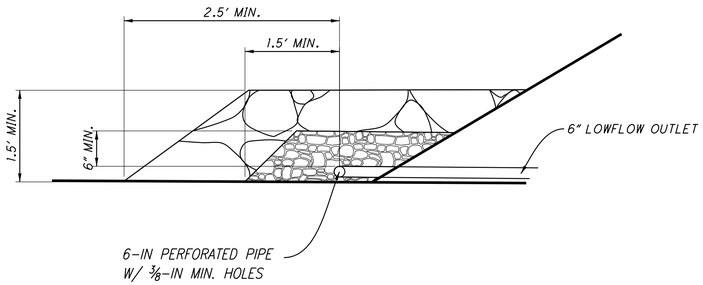
Profile View

Not to Scale

Detail B-B

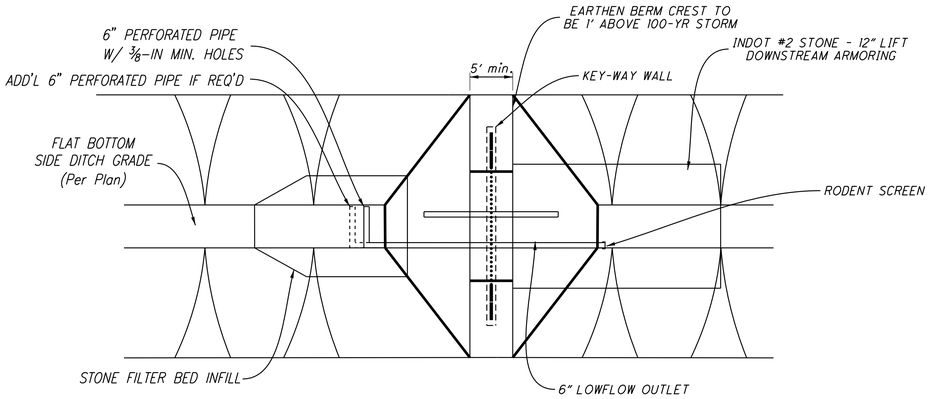


401 X 12'-0"



Profile View (Low-Flow Pipe Inlet)

Not to Scale



EARTHEN DRAINAGE DITCH BERM, ON GRADE PLAN VIEW

Not to Scale

/1

STORM WATER DETENTION BASIN MANAGEMENT FACILITIES DATA TABLE									STORM WATER DETENTION BASIN MANAGEMENT FACILITIES QUANTITIES								
STRUCTURE	STATION	PERFORATED PIPE ELEV.	FLOW AREA REQ'D (SQ.IN.)	PRIMARY OUT DIA (IN.)	PRIMARY INVERT ELEV.	DITCH BOTTOM WIDTH (FT)	WEIR CREST ELEV.	STRUCTURE NOTES	No. 2 Stone (TON)	Coarse Aggregate No. 8 (CYS)	Geomembrane (SYS)	Pipe, Type 2, Circular, 12-inch (LFT)	Pipe, Type 2, Circular, 6-inch (LFT)	Pipe, Underdrain, Corr. Plastic, Perf. 6-inch (LFT)	Concrete Class B (CYS)	Fill (CYS)	Unclassified Excavation (CYS)
134B	1482+50R	642.0	1.6	6	646.0	8	649.8	BERM RT TO EL.651.3	40	2.0	220		76	1	3.0	1400	
134D	1488+00L	642.0	1.6	6	646.3	4	649.5	BERM LT TO EL.651.0	30	1.2	180		70	1	3.0	650	
975A	1501+20R	695.0	1.6	6	696.5	4	697.8		20	1.2	70		46	1	3.0	27	
975B	1501+60R	695.0	1.6	12	700.0	4	701.6		30	1.2	160	16	44	1	3.0	150	
975C	1498+00L	675.0	1.6	6	677.5	4	678.0	BERM RT TO EL. 679.5 & DITCH BLOCK(1496+00/678.2)	20	1.2	70		46	1	3.0	60	
975D	1498+40L	675.0	1.6	12	682.0	4	684.7	BERM LT TO EL. 686.2	40	1.2	260	22	56	1	3.0	575	
976A	1509+10R	703.0	1.6	6	705.5	4	706.9	BERM RT TO EL. 708.4	30	1.2	90		50	1	3.0	80	
976B	1509+50R	703.0	1.6	6	705.0	4	706.6	BERM RT TO EL. 708.1	30	1.2	90		48	1	3.0	150	
977B	1513+40R	711.0	1.6	6	712.5	4	714.5		20	1.2	80		54	1	3.0	40	
928A	1519+50R	716.0	3.2	12	718.8	4	720.6	Use Dual Primary	30	1.2	1410	36	36	2	3.0		3700
981A	1560+50L (NWR)	740.0	1.6	12	742.7	4	744.4	Use Dual Primary	40	1.2	1830	36	60	2	3.0	2300	
987A	1520+50L	704.5	3.2	12	709.0	4	711.6		30	1.2	240	20	46	1	3.0	300	
								TOTAL	360	15.2	4700	130	632	14	36.0	5732	3700

STORM WATER DETENTION BERM DATA TABLE									STORM WATER DETENTION BERM QUANTITIES								
STRUCTURE	STATION	PERFORATED PIPE ELEV.	FLOW AREA REQ'D (SQ.IN.)	PRIMARY OUT DIA (IN.)	PRIMARY INVERT ELEV.	DITCH BOTTOM WIDTH (FT)	WEIR CREST ELEV.	STRUCTURE NOTES	No. 2 Stone (TON)	Coarse Aggregate No. 8 (CYS)	Geomembrane (SYS)	Pipe, Type 2, Circular, 12-inch (LFT)	Pipe, Type 2, Circular, 6-inch (LFT)	Pipe, Underdrain, Corr. Plastic, Perf. 6-inch (LFT)	Concrete Class B (CYS)	Fill (CYS)	Unclassified Excavation (CYS)
134	1476+25R	627.2	1.6	6	628.7	4	630.2		20	1.2	70		46	1	3.0	27	
134	1483+75L	639.8	1.6	6	641.3	4	642.8		20	1.2	70		46	1	3.0	27	
981	1561+12.5R (NWR)	728.1	1.6	6	729.6	4	731.1		20	1.2	70		46	1	3.0	27	
981	1562+25R (NWR)	731.2	1.6	6	732.7	4	734.2		20	1.2	70		46	1	3.0	27	
								TOTAL	80	4.8	280	0	184	4	12.0	108	0

JEANETTE WAGNER FULKERSON REGISTERED No. PE60870080 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/4/12

DESIGNED: PXG — DRAWN: BDM

CHECKED: JWF — CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

DRAINAGE DITCH BERM DETAILS

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	MD-06 / 104 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/1/2012
TIME: 11:19:54 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\2562750RD_MD06_A2.dgn

/1 09/25/12 - Rock Filter Berm detail revised

CURVE DATA
PI = 1522+94.22 "A"
Δ = 71° 30' 58" (LT)
R = 4,000.00'
T = 2,880.44'
L = 4,992.77'
E = 929.19'

CURVE DATA
PI = 1525+66.33 "PR-A"
Δ = 77° 37' 50" (LT)
R = 3,800.00'
T = 3,056.95'
L = 5,148.65'
E = 1,076.98'
se = 5.2%
Design Speed = 70 mph

CURVE DATA
PI = 1511+18.54 "SER-3"
Δ = 2° 43' 53" (LT)
R = 5,001.17'
T = 119.23'
L = 238.42'
E = 1.42'
se = 5.2%
Design Speed = 50

1500 1505 1510 1515

(53) Eq.
POT Sta. 1494+13.78 "PR-A" =
PC Sta. 1494+13.78 "A"
Monument Type "C", Req'd

(54) PC Sta. 1495+09.39 "PR-A"
Monument Type "C", Req'd

N 33°37'14" E

1495 1496 1497 1498 1499 1500 1501 1502 1503 1504 1505 1506 1507 1508 1509 1510 1511 1512 1513 1514 1515 1516

Line "A"
Line "PR-A"

I-69 Southbound
I-69 Northbound

N 8°48'02" E

Line "SER-3"

SEE PAGE GE-02

(1) Eq.
PC Sta. 1509+99.31 "SER-3" =
OPOC Sta. 1509+99.31 "PR-A"
Off. 66.0' Rt.
Monument Type "D", Req'd

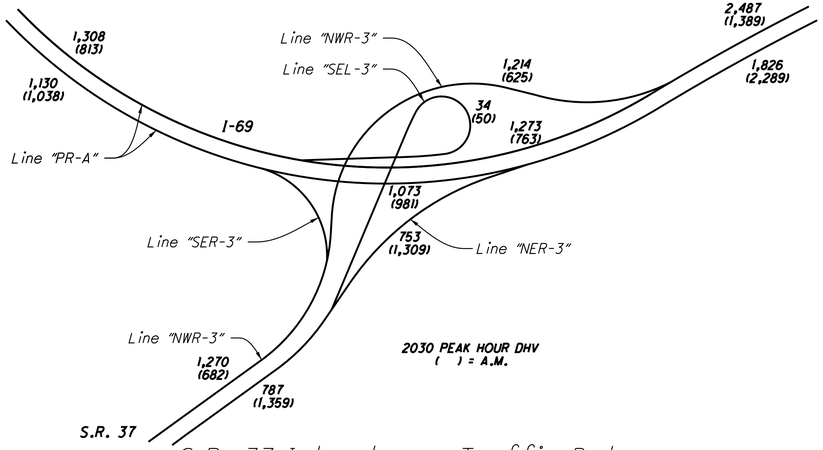
N 11°31'56" E

(2) PI Sta. 1511+18.54 "SER-3"
Monument Type "D", Req'd

(3) PT Sta. 1512+37.73 "SER-3"
Monument Type "D", Req'd

N 33°37'14" E

POINT	STATION	LINE	NORTHING	EASTING
1	1509+99.31	SER-3	507997.3539	1272885.2722
2	1511+18.54	SER-3	508114.1806	1272909.1091
3	1512+37.73	SER-3	508232.0105	1272927.3516
(53)	1494+13.78	PR-A	506561.6924	1272203.7277
	1494+13.78	A		
54	1495+09.39	PR-A	506641.3088	1272256.6659



S.R. 37 Interchange Traffic Data

1 9/25/12 - Updated Notes And Labels

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH
CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE GEOMETRIC LAYOUT STA. 1499+00 TO STA. 1516+00 "PR-A"

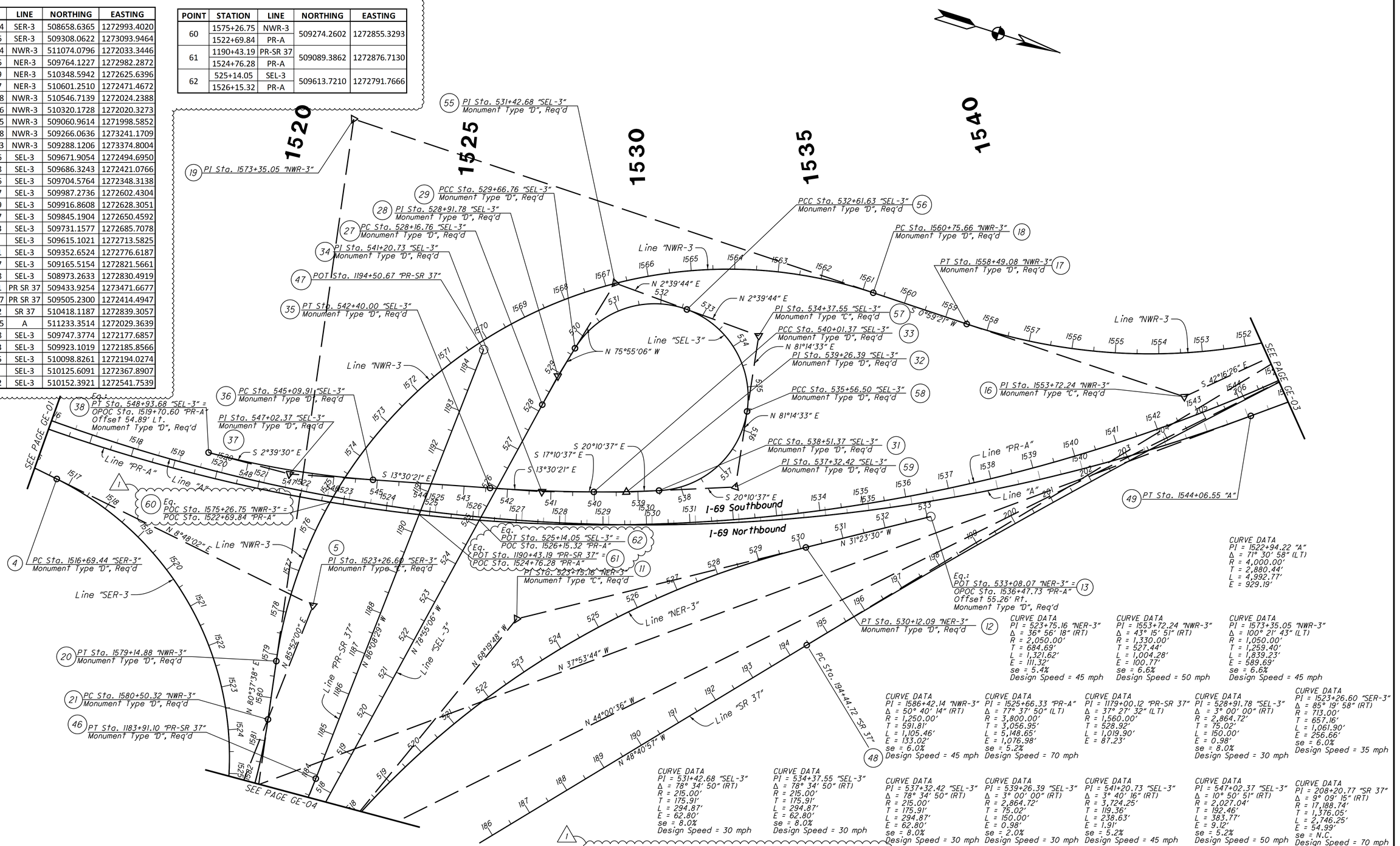
HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GE-01	105 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:35:47 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\VTransp\CaddKnock\S9\9_Detail Sheets\E_Geometric Details\25627500RD_GE01_S9.dgn

POINT	STATION	LINE	NORTHING	EASTING
4	1516+69.44	SER-3	508658.6365	1272993.4020
5	1523+26.6	SER-3	509308.0622	1273093.9464
16	1553+72.24	NWR-3	511074.0796	1272033.3446
11	523+75.16	NER-3	509764.1227	1272982.2872
12	530+12.09	NER-3	510348.5942	1272625.6396
13	533+08.07	NER-3	510601.2510	1272471.4672
17	1558+49.08	NWR-3	510546.7139	1272024.2388
18	1560+75.66	NWR-3	510320.1728	1272020.3273
19	1573+35.05	NWR-3	509060.9614	1271998.5852
20	1579+14.88	NWR-3	509266.0636	1273241.1709
21	1580+50.23	NWR-3	509288.1206	1273374.8004
27	528+16.76	SEL-3	509671.9054	1272494.6950
28	528+91.78	SEL-3	509686.3243	1272421.0766
29	529+66.76	SEL-3	509704.5764	1272348.3138
31	538+51.37	SEL-3	509987.2736	1272602.4304
32	539+26.39	SEL-3	509916.8608	1272628.3051
33	540+01.37	SEL-3	509845.1904	1272650.4592
34	541+20.73	SEL-3	509731.1577	1272685.7078
35	542+40.	SEL-3	509615.1021	1272713.5825
36	545+09.91	SEL-3	509352.6524	1272776.6187
37	547+02.37	SEL-3	509165.5154	1272821.5661
38	548+93.68	SEL-3	508973.2633	1272830.4919
46	1183+91.1	PR SR 37	509433.9254	1273471.6677
47	1194+50.67	PR SR 37	509505.2300	1272414.4947
48	194+44.72	SR 37	510418.1187	1272839.3057
49	1544+06.55	A	511233.3514	1272029.3639
55	531+42.68	SEL-3	509747.3774	1272177.6857
56	532+61.63	SEL-3	509923.1019	1272185.8566
57	534+37.55	SEL-3	510098.8261	1272194.0274
58	535+56.5	SEL-3	510125.6091	1272367.8907
59	537+32.42	SEL-3	510152.3921	1272541.7539

POINT	STATION	LINE	NORTHING	EASTING
60	1575+26.75	NWR-3	509274.2602	1272855.3293
	1522+69.84	PR-A		
61	1190+43.19	PR-SR 37	509089.3862	1272876.7130
	1524+76.28	PR-A		
62	525+14.05	SEL-3	509613.7210	1272791.7666
	1526+15.32	PR-A		



CURVE DATA
PI = 1522+94.22 "A"
Δ = 71° 30' 58" (LT)
R = 4,000.00'
T = 2,880.44'
L = 4,992.77'
E = 929.19'

CURVE DATA
PI = 523+75.16 "NER-3"
Δ = 36° 56' 18" (RT)
R = 2,050.00'
T = 684.69'
L = 1,321.62'
E = 111.32'
se = 5.4%
Design Speed = 45 mph

CURVE DATA
PI = 1553+72.24 "NWR-3"
Δ = 43° 15' 51" (RT)
R = 1,330.00'
T = 527.44'
L = 1,004.28'
E = 100.77'
se = 6.6%
Design Speed = 50 mph

CURVE DATA
PI = 1573+35.05 "NWR-3"
Δ = 100° 21' 43" (LT)
R = 1,050.00'
T = 1,259.40'
L = 1,839.23'
E = 589.69'
se = 6.6%
Design Speed = 45 mph

CURVE DATA
PI = 1586+42.14 "NWR-3"
Δ = 50° 40' 14" (RT)
R = 1,250.00'
T = 591.81'
L = 1,105.46'
E = 133.02'
se = 6.0%
Design Speed = 45 mph

CURVE DATA
PI = 1525+66.33 "PR-A"
Δ = 77° 37' 50" (LT)
R = 3,800.00'
T = 3,056.95'
L = 5,148.65'
E = 1,076.98'
se = 5.2%
Design Speed = 70 mph

CURVE DATA
PI = 1179+00.12 "PR-SR 37"
Δ = 37° 27' 32" (LT)
R = 1,560.00'
T = 528.92'
L = 1,019.90'
E = 87.23'

CURVE DATA
PI = 528+91.78 "SEL-3"
Δ = 3° 00' 00" (RT)
R = 2,864.72'
T = 75.02'
L = 150.00'
E = 0.98'
se = 8.0%
Design Speed = 30 mph

CURVE DATA
PI = 1523+26.60 "SER-3"
Δ = 85° 19' 58" (RT)
R = 713.00'
T = 657.16'
L = 1,061.90'
E = 256.66'
se = 6.0%
Design Speed = 35 mph

CURVE DATA
PI = 531+42.68 "SEL-3"
Δ = 78° 34' 50" (RT)
R = 215.00'
T = 175.91'
L = 294.87'
E = 62.80'
se = 8.0%
Design Speed = 30 mph

CURVE DATA
PI = 534+37.55 "SEL-3"
Δ = 78° 34' 50" (RT)
R = 215.00'
T = 175.91'
L = 294.87'
E = 62.80'
se = 8.0%
Design Speed = 30 mph

CURVE DATA
PI = 537+32.42 "SEL-3"
Δ = 78° 34' 50" (RT)
R = 215.00'
T = 175.91'
L = 294.87'
E = 62.80'
se = 8.0%
Design Speed = 30 mph

CURVE DATA
PI = 539+26.39 "SEL-3"
Δ = 3° 00' 00" (RT)
R = 2,864.72'
T = 75.02'
L = 150.00'
E = 0.98'
se = 2.0%
Design Speed = 30 mph

CURVE DATA
PI = 541+20.73 "SEL-3"
Δ = 3° 40' 16" (RT)
R = 3,124.25'
T = 119.36'
L = 238.63'
E = 1.91'
se = 5.2%
Design Speed = 45 mph

CURVE DATA
PI = 547+02.37 "SEL-3"
Δ = 10° 50' 51" (RT)
R = 2,027.04'
T = 192.46'
L = 383.77'
E = 9.12'
se = 5.2%
Design Speed = 50 mph

CURVE DATA
PI = 208+20.77 "SR 37"
Δ = 9° 09' 15" (RT)
R = 17,188.74'
T = 1,376.05'
L = 2,746.25'
E = 54.99'
se = N.C.
Design Speed = 70 mph

1 9/25/12 - Updated Notes And Labels

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH
CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE GEOMETRIC LAYOUT STA. 1516+00 TO STA. 1545+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GE-02	106 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:35:48 AM
LOCATION: N:\Projects\25627500\Y Drawings\V4 Trans\Y Trans\Cadd\Road\3D\9_Detail Sheets\E_Geometric Details\25627500RD_GE02_S9.dgn

CURVE DATA
PI = 1522+94.22 "A"
Δ = 71° 30' 58" (LT)
R = 4,000.00'
T = 2,880.44'
L = 4,992.77'
E = 929.19'

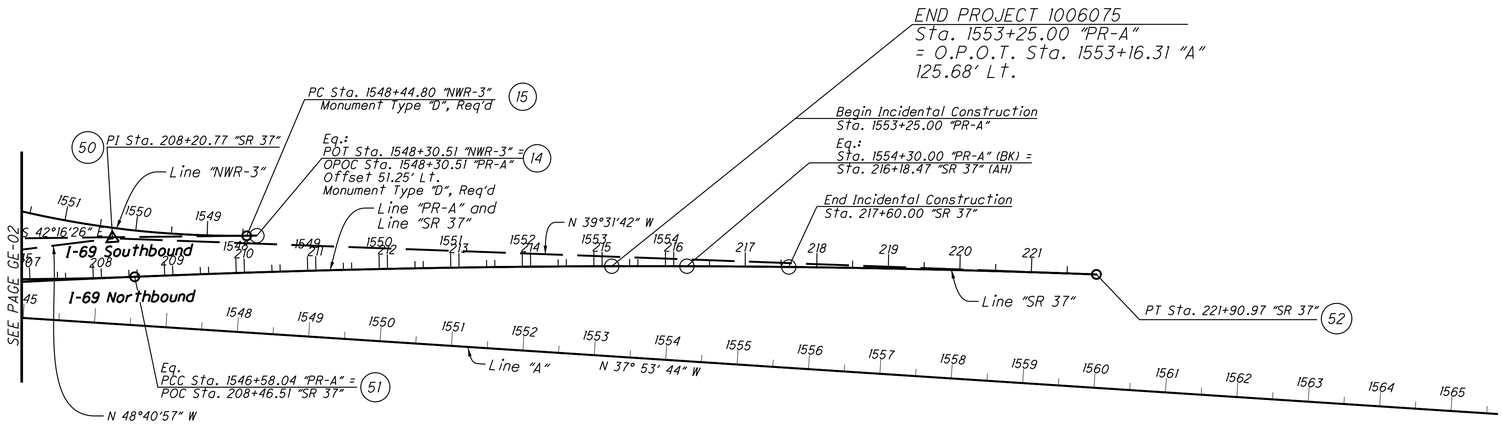
CURVE DATA
PI = 1553+72.24 "NWR-3"
Δ = 43° 15' 51" (RT)
R = 1,330.00'
T = 527.44'
L = 1,004.28'
E = 100.77'
se = 6.6%
Design Speed = 50 mph

CURVE DATA
PI = 208+20.77 "SR 37"
Δ = 9° 09' 15" (RT)
R = 17,188.74'
T = 1,376.05'
L = 2,746.25'
E = 54.99'
se = N.C.
Design Speed = 70 mph

CURVE DATA
PI = 1525+66.33 "PR-A"
Δ = 77° 37' 50" (LT)
R = 3,800.00'
T = 3,056.95'
L = 5,148.65'
E = 1,076.98'
se = 5.2%
Design Speed = 70 mph

CURVE DATA
PI = 1553+30.60 "PR-A"
Δ = 4° 28' 54" (RT)
R = 17,188.15'
T = 672.56'
L = 1,344.43'
E = 13.15'
se = N.C.
Design Speed = 70 mph

1550 1555 1560



POINT	STATION	LINE	NORTHING	EASTING
14	1548+30.51	NWR-3	511474.9216	1271668.9280
15	1548+44.8	NWR-3	511464.3496	1271678.5392
50	208+20.77	SR 37	511326.6312	1271805.8030
51	1546+58.04	PR-A	511385.5097	1271825.3528
52	221+90.97	SR 37	512387.9943	1270929.9997

DATE: 10/3/2012
TIME: 10:35:51 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\CaddKRoad\S9\9_Detail Sheets\E_Geometric Details\25627500RD_GE03_S9.dgn

1 9/25/12 - Updated Notes And Labels

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/1/2012

DESIGNED: JB | DRAWN: KCH
CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

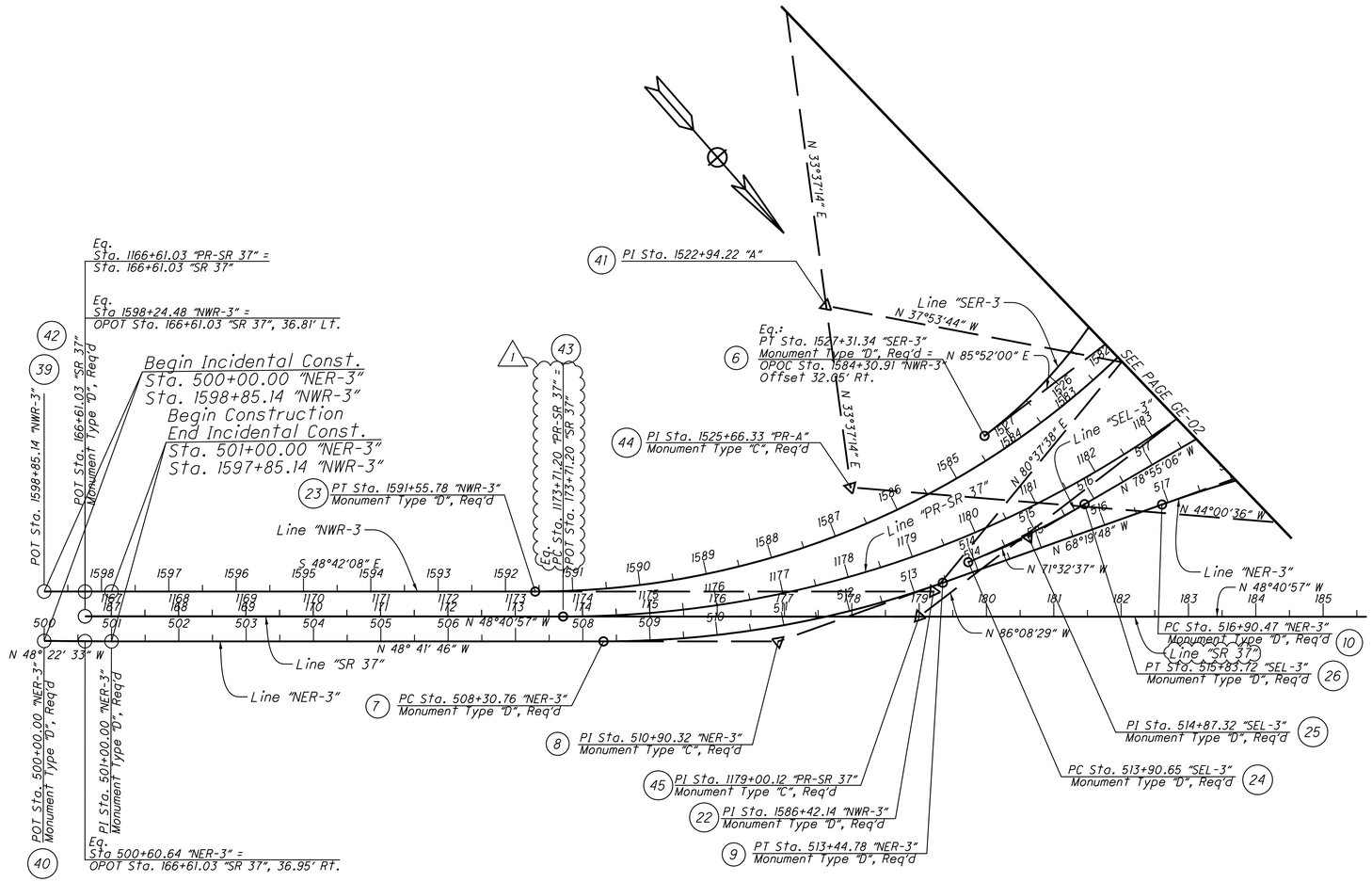
INTERCHANGE GEOMETRIC LAYOUT STA. 1545+00 TO STA. 1560+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GE-03	107 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1

POINT	STATION	LINE	NORTHING	EASTING
6	1527+31.34	SER-3	509260.6946	1273749.3998
7	508+30.76	NER-3	509116.4837	1274376.0349
8	510+90.32	NER-3	509287.8036	1274181.0532
9	513+44.78	NER-3	509383.6465	1273939.8425
10	516+90.47	NER-3	509511.2932	1273618.5903
22	1586+42.14	NWR-3	509384.5018	1273958.7136
23	1591+55.78	NWR-3	508993.9208	1274403.3374
24	513+90.65	SEL-3	509385.7213	1273891.3079
25	514+87.32	SEL-3	509416.3242	1273799.6129
26	515+83.72	SEL-3	509434.9044	1273704.7484
39	1598+85.14	NWR-3	508512.5651	1274951.2962
40	500+00.	NER-3	508567.7152	1274999.7496
41	1522+94.22	A	508960.3025	1273798.6020
42	166+61.03	SR 37	508580.2432	1274930.0298
43	1173+71.2	PR SR 37	509049.1199	1274396.6466
	173+71.20	SR 37		
44	1525+66.33	PR-A	509186.8962	1273949.2678
45	1179+00.12	PR SR 37	509398.3313	1273999.3919



CURVE DATA
PI = 510+90.32 "NER-3"
Δ = 19° 38' 03" (LT)
R = 1,500.00'
T = 259.55'
L = 514.02'
E = 22.29'
se = 5.4%
Design Speed = 45 mph

CURVE DATA
PI = 523+75.16 "NER-3"
Δ = 36° 56' 18" (RT)
R = 2,050.00'
T = 684.69'
L = 1,321.62'
E = 111.32'
se = 5.4%
Design Speed = 45 mph

CURVE DATA
PI = 1586+42.14 "NWR-3"
Δ = 50° 40' 14" (RT)
R = 1,250.00'
T = 591.81'
L = 1,105.46'
E = 133.02'
se = 6.0%
Design Speed = 45 mph

CURVE DATA
PI = 1179+00.12 "PR-SR 37"
Δ = 37° 27' 32" (LT)
R = 1,560.00'
T = 528.92'
L = 1,019.90'
E = 87.23'

CURVE DATA
PI = 1523+26.60 "SER-3"
Δ = 85° 19' 58" (RT)
R = 713.00'
T = 657.16'
L = 1,061.90'
E = 256.66'
se = 6.0%
Design Speed = 35 mph

1

CURVE DATA
PI = 514+87.32 "SEL-3"
Δ = 7° 22' 29" (LT)
R = 1,500.00'
T = 96.67'
L = 193.07'
E = 3.11'
se = 5.4%
Design Speed = 45 mph

CURVE DATA
PI = 1525+66.33 "PR-A"
Δ = 77° 37' 50" (LT)
R = 3,800.00'
T = 3,056.95'
L = 5,148.65'
E = 1,076.98'
se = 5.2%
Design Speed = 70 mph

CURVE DATA
PI = 1522+94.22 "A"
Δ = 71° 30' 58" (LT)
R = 4,000.00'
T = 2,880.44'
L = 4,992.77'
E = 929.19'

1

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH
CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE GEOMETRIC LAYOUT
RAMP "NER-3", "NWR-3", "SEL-3", & "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GE-04	108 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:39:56 AM
LOCATION: N:\Projects\25627500\Y Drawings\V4 Trans\YTransp\Cadd\Road\$Y9_Detail Sheets\E_Geometric Details\25627500RD_GE04_S9.dgn

1 9/25/12 - Updated Notes And Labels

All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "PR-A" except as noted.

Limited Access provisions to apply where indicated.

1 9/25/12 - Updated Notes And Labels

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED:	JB	DRAWN:	KCH
CHECKED:	WJW	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE R/W DETAILS
STA. 1499+00 TO STA. 1516+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 100'	N/A	
VERTICAL SCALE	DESIGNATION	
NONE	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	RW-01	109 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:35:55 AM
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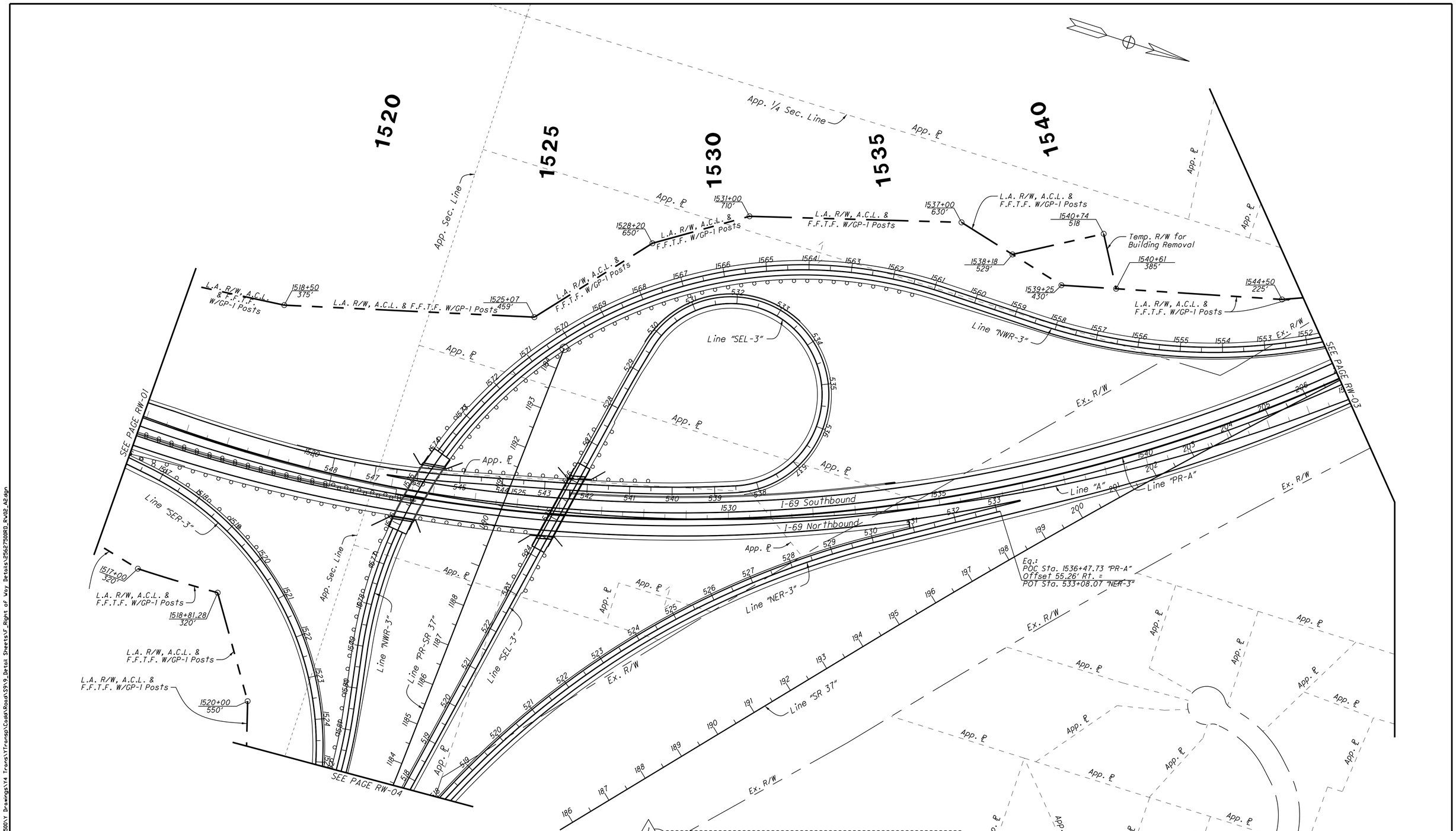

All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "PR-A" except as noted.

Limited Access provisions to apply where indicated.

1 9/25/12 - Updated Notes And Labels

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH

CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE R/W DETAILS STA. 1516+00 TO STA. 1545+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	RW-02	110 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:39:56 AM
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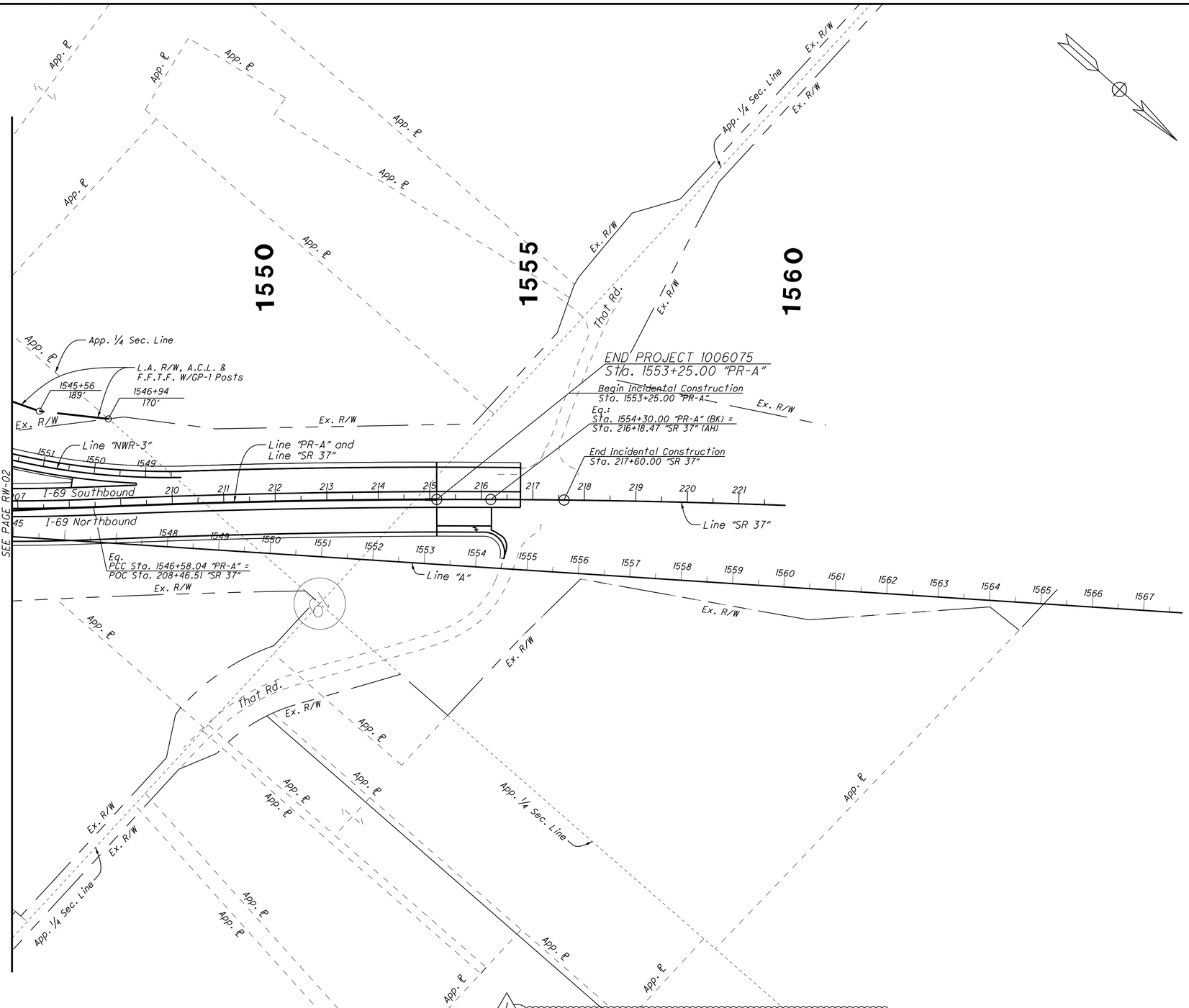

All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "PR-A" except as noted.

Limited Access provisions to apply where indicated.

1 9/25/12 - Updated Notes And Labels

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB	DRAWN: KCH
CHECKED: WJW	CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE R/W DETAILS STA. 1545+00 TO STA. 1560+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	RW-03	111 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:39:57 AM
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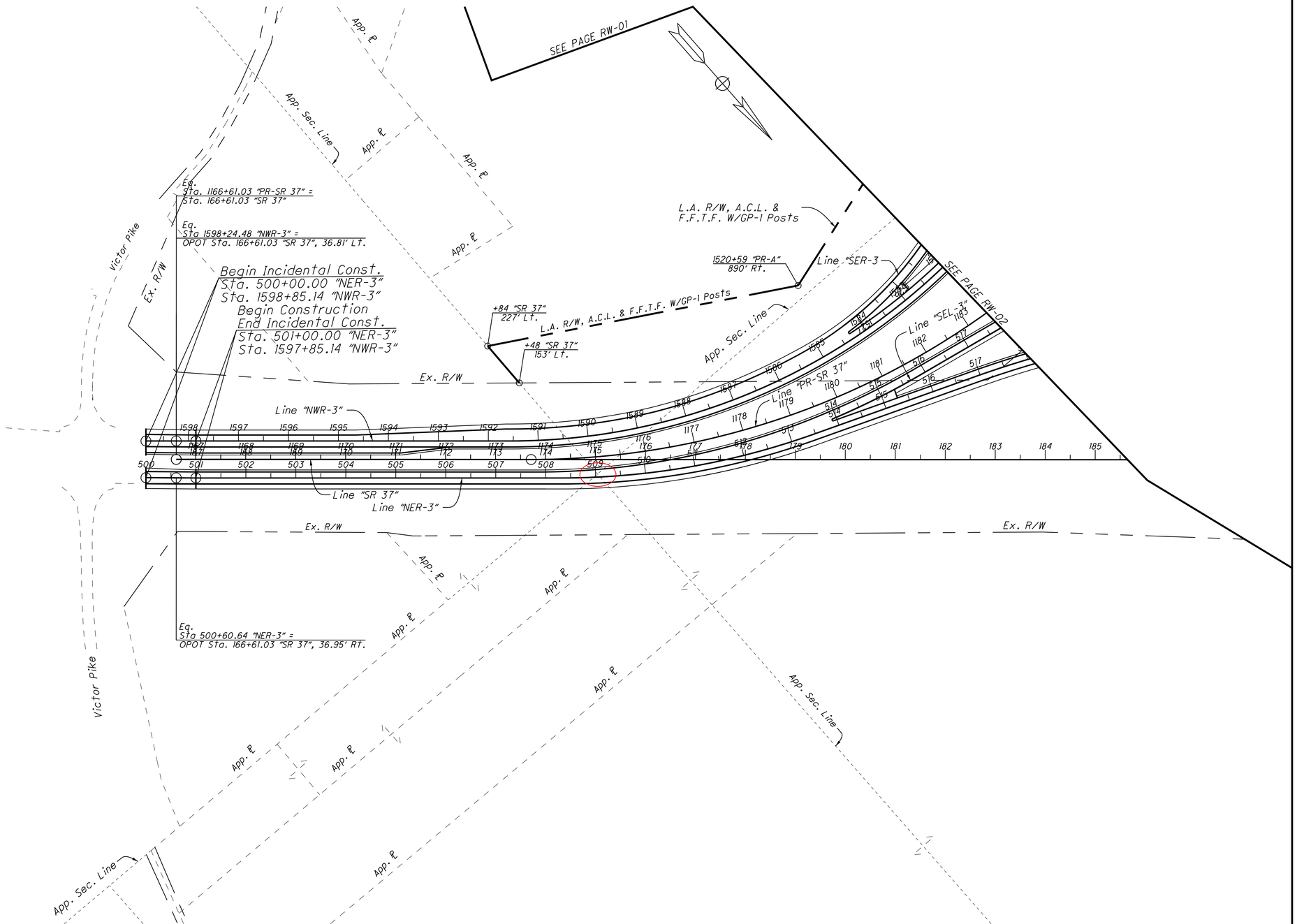

All R/W on this sheet to be as shown.

All R/W on this sheet described from Line "PR-A" except as noted.

Limited Access provisions to apply where indicated.

1 9/25/12 - Updated Notes And Labels

William James Williams
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STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH

CHECKED: WJW | CHECKED: MDO

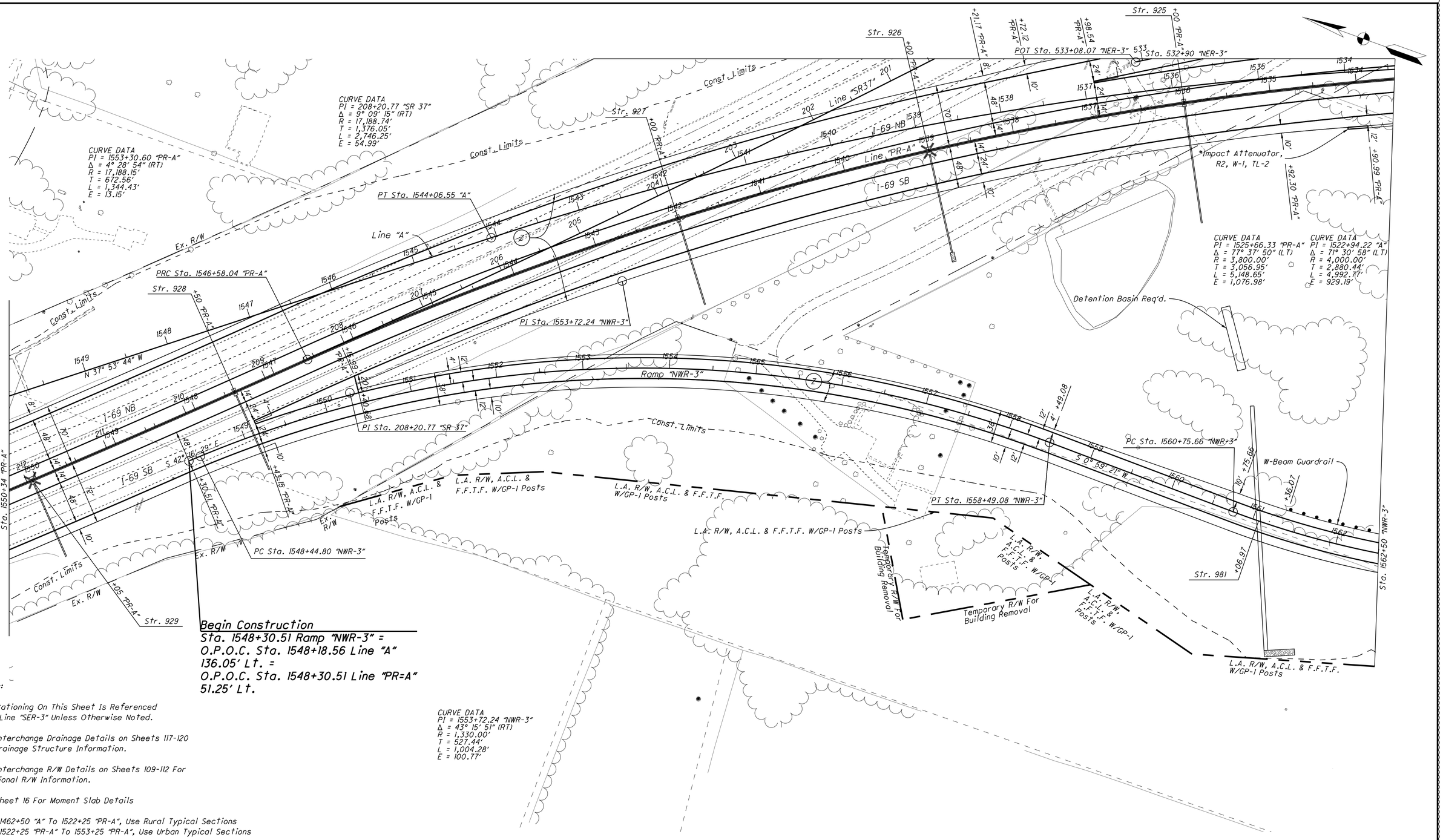
INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE R/W DETAILS
RAMP "NER-3", "NWR-3", "SEL-3", & "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	RW-04	112 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:39:58 AM
LOCATION: N:\Projects\25627500\Y Drawings\V4 Trans\YTransp\Cadd\Road\S9V9_Detail Sheets\F_Right of Way Details\25627500RD_RW04_AZ.dgn



Notes:

All Stationing On This Sheet Is Referenced From Line "SER-3" Unless Otherwise Noted.

See Interchange Drainage Details on Sheets 117-120 For Drainage Structure Information.

See Interchange R/W Details on Sheets 109-112 For Additional R/W Information.

See Sheet 16 For Moment Slab Details

From 1462+50 "A" To 1522+25 "PR-A", Use Rural Typical Sections
From 1522+25 "PR-A" To 1553+25 "PR-A", Use Urban Typical Sections

(Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120

William James Williams, Registered No. 10810125 State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB	DRAWN: KCH
CHECKED: WJW	CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

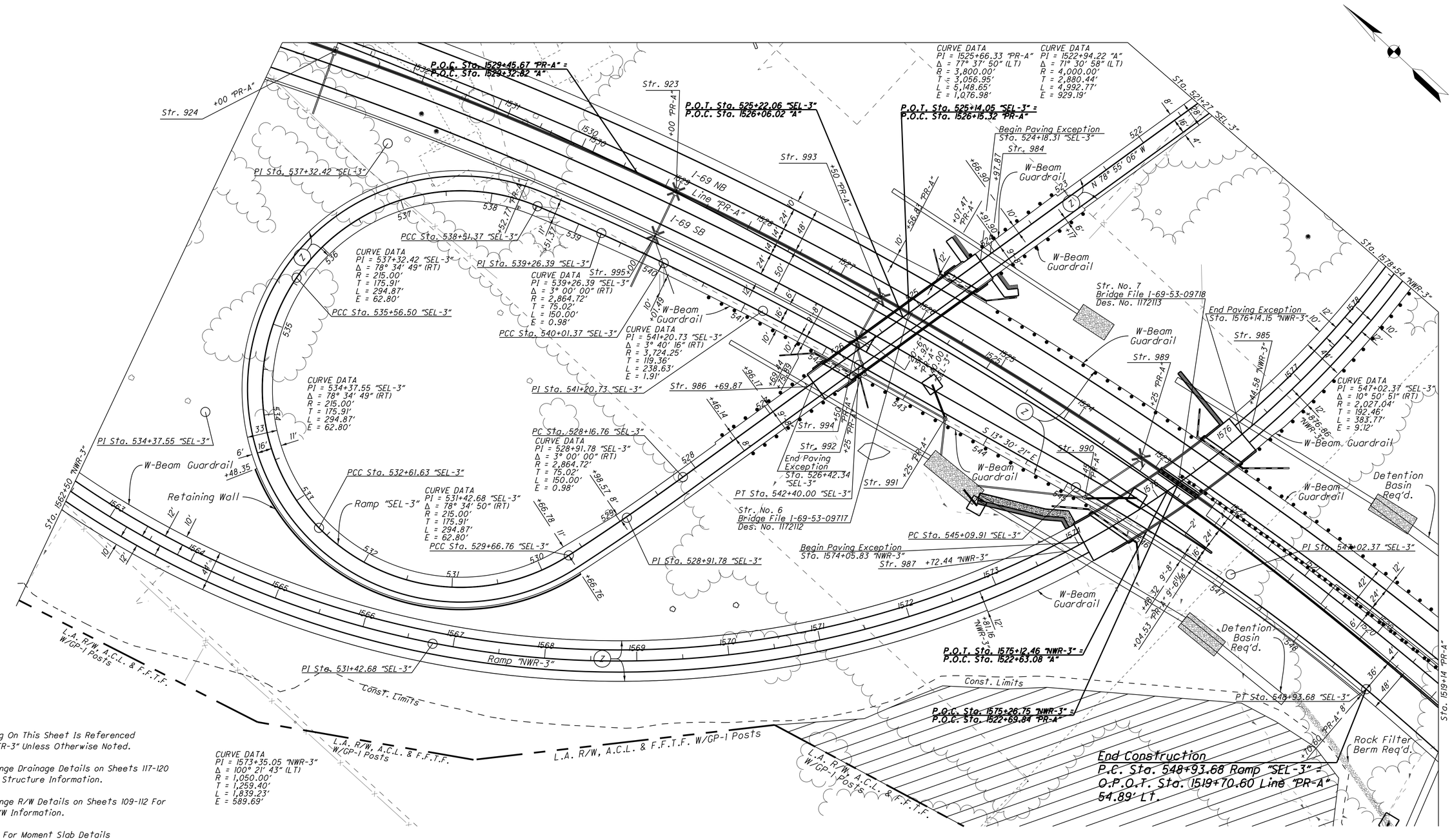
INTERCHANGE CONSTRUCTION DETAILS RAMP "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IC-01	113 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:38:00 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\VTransp\Cadd\Road\SSY9_Detail Sheets\B_Intersection Details\25627500101-SSY.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



Notes:

All Stationing On This Sheet Is Referenced From Line "SER-3" Unless Otherwise Noted.

See Interchange Drainage Details on Sheets 117-120 For Drainage Structure Information.

See Interchange R/W Details on Sheets 109-112 For Additional R/W Information.

See Sheet 16 For Moment Slab Details

From 1462+50 "A" To 1522+25 "PR-A", Use Rural Typical Sections
From 1522+25 "PR-A" To 1553+25 "PR-A", Use Urban Typical Sections

(Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH
CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE CONSTRUCTION DETAILS RAMPS "NWR-3" "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IC-02	114 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels
9/25/12 - Revised Guardrail

DATE: JAN 24, 2012
TIME: 10:36:01 AM
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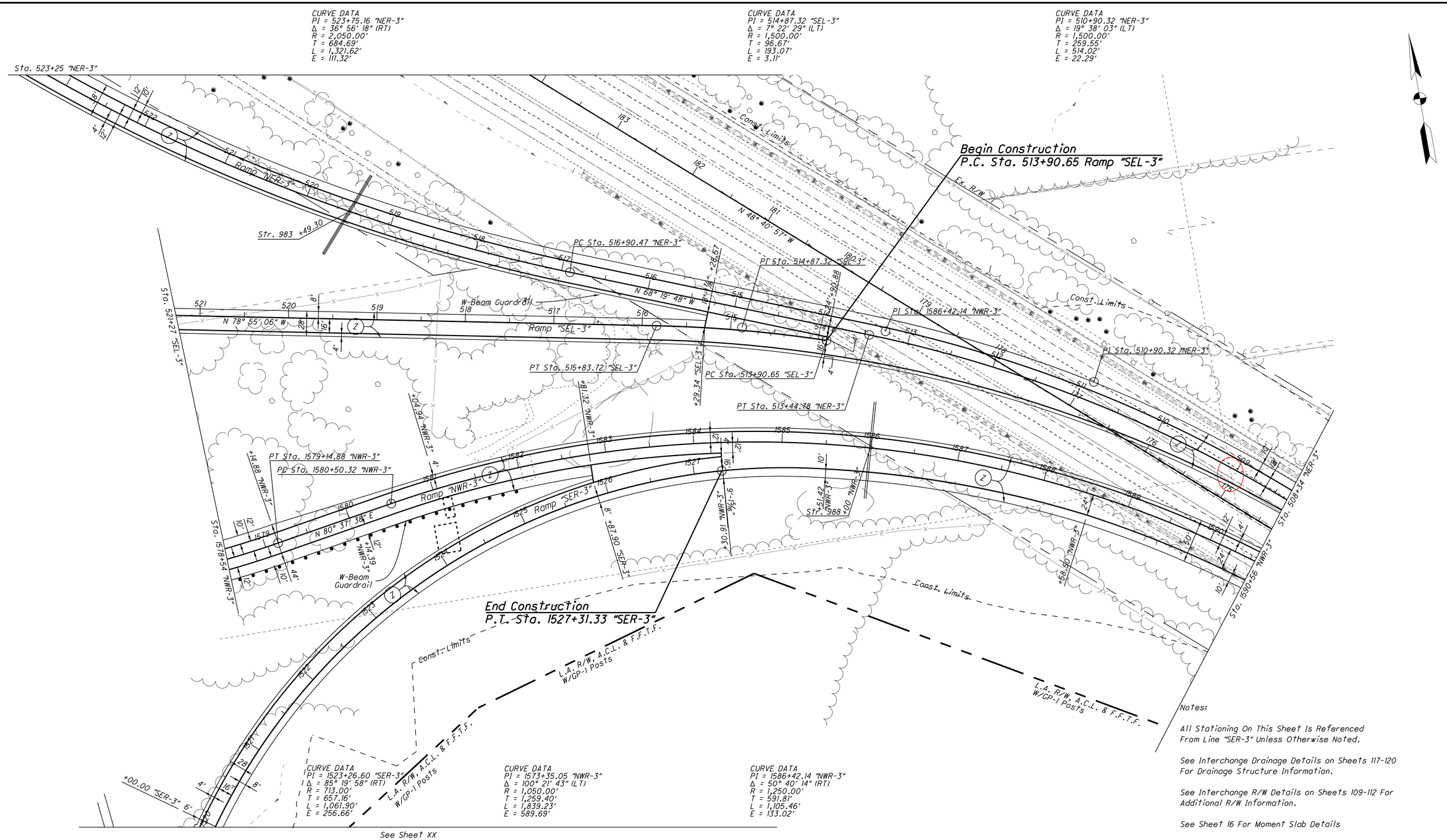


Notes:

All Stationing On This Sheet Is Referenced From Line "SER-3" Unless Otherwise Noted.

See Interchange Drainage Details on Sheets 117-120 For Drainage Structure Information.

See Interchange R/W Details on Sheets 109-112 For Additional R/W Information.

See Sheet 16 For Moment Slab Details

From 1462+50 "A" To 1522+25 "PR-A", Use Rural Typical Sections
From 1522+25 "PR-A" To 1553+25 "PR-A", Use Urban Typical Sections

(Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120

James W. Williams — No. 10810125 — STATE OF INDIANA — REGISTERED PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH

CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

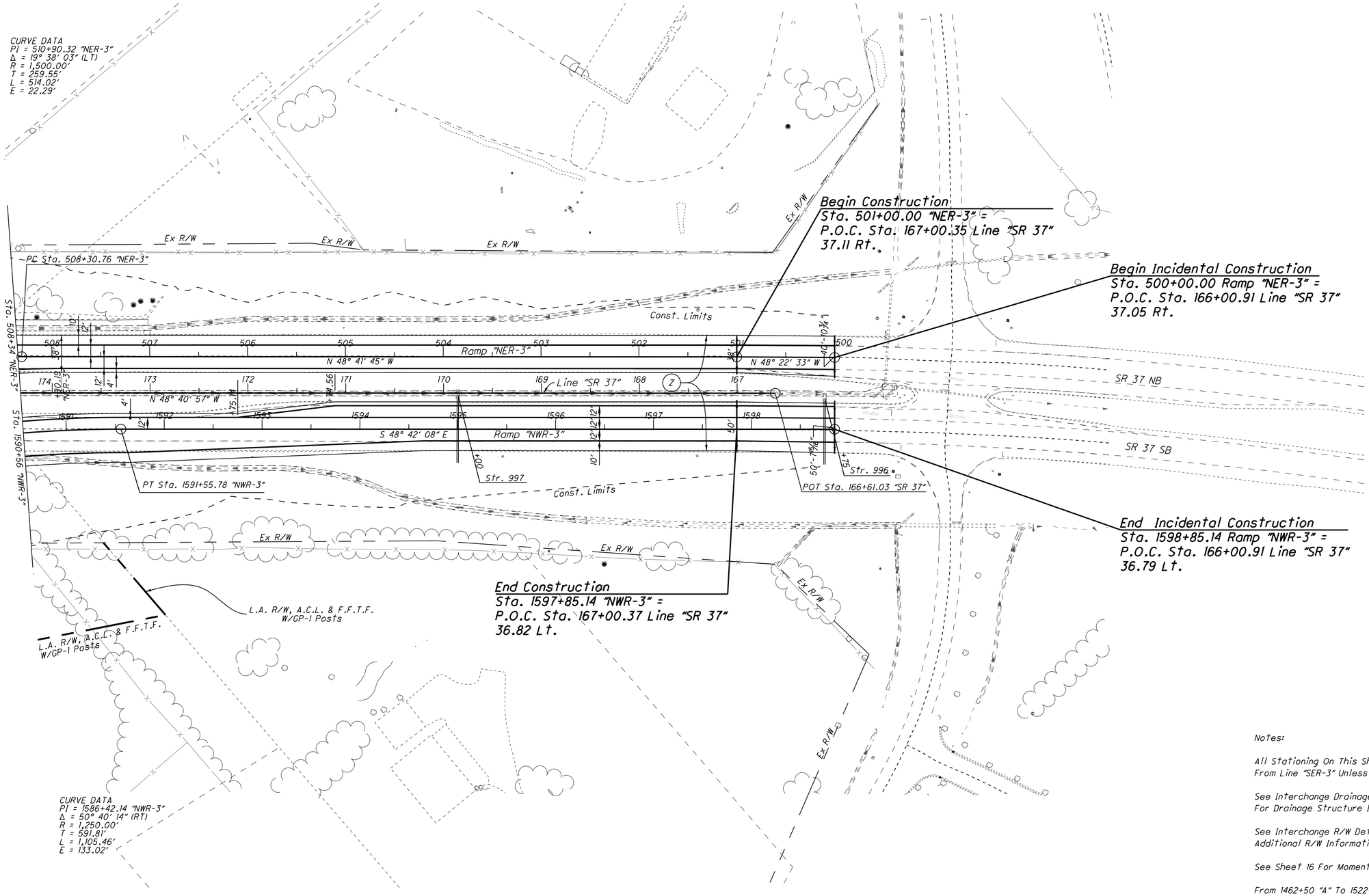
INTERCHANGE CONSTRUCTION DETAILS RAMPS "NER-3" "NWR-3" SEL-3" "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IC-03	115 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:30:03 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\Y1Transp\Cadd\Roads\SYS_Detail Sheets\B_Intersection Details\25627500103-SSR.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels
9/25/12 - Revised Guardrail



Notes:

All Stationing On This Sheet Is Referenced From Line "SER-3" Unless Otherwise Noted.

See Interchange Drainage Details on Sheets 117-120 For Drainage Structure Information.

See Interchange R/W Details on Sheets 109-112 For Additional R/W Information.

See Sheet 16 For Moment Slab Details

From 1462+50 "A" To 1522+25 "PR-A", Use Rural Typical Sections
From 1522+25 "PR-A" To 1553+25 "PR-A", Use Urban Typical Sections

(Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH
CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE CONSTRUCTION DETAILS RAMPS "NER-3" "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IC-04	116 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE 10-3-2012
TIME 10:36:04 AM
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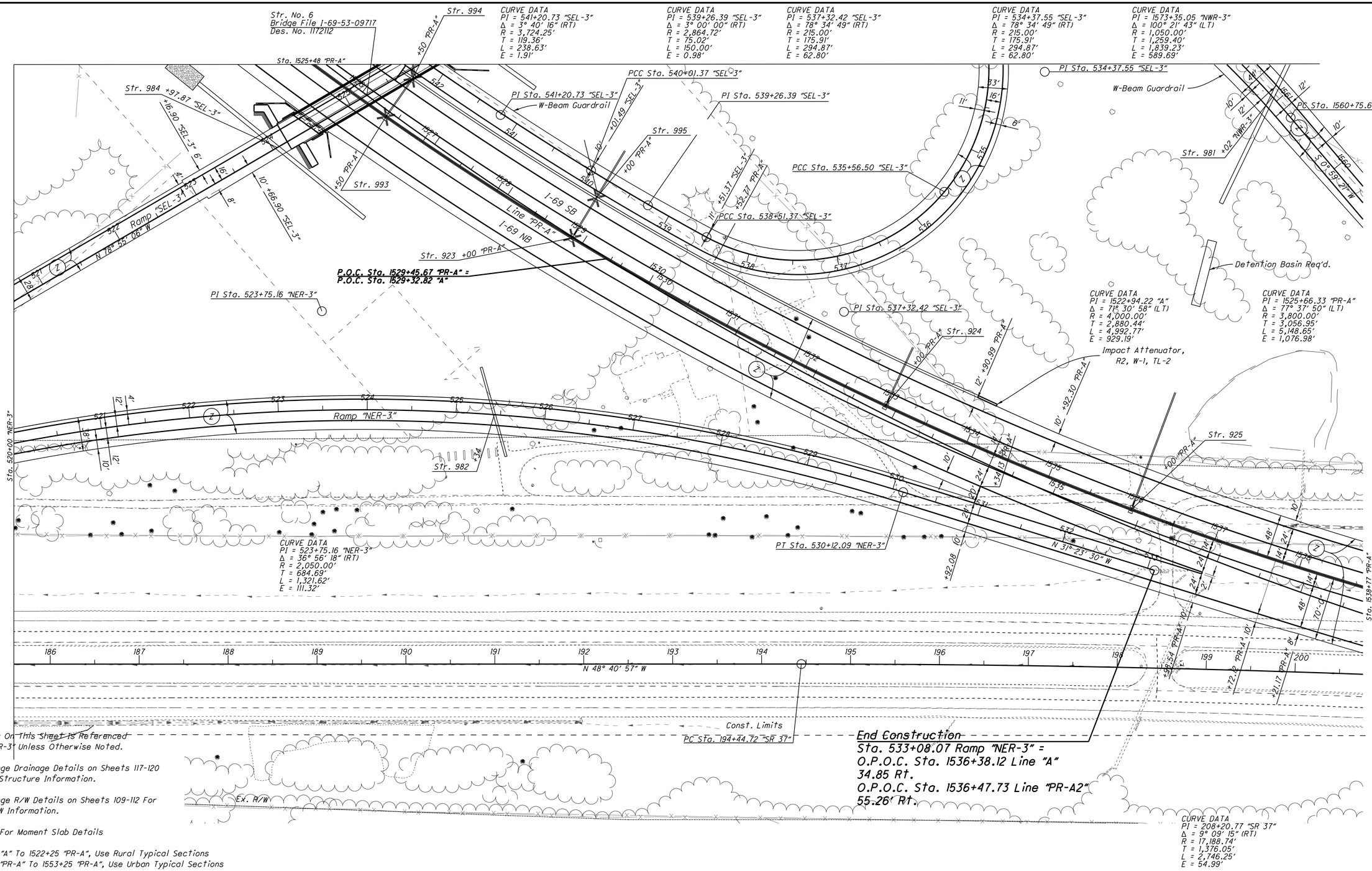
1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



Notes:

All Stationing On This Sheet Is Referenced From Line "SER-3" Unless Otherwise Noted.

See Interchange Drainage Details on Sheets 117-120 For Drainage Structure Information.

See Interchange R/W Details on Sheets 109-112 For Additional R/W Information.

See Sheet 16 For Moment Slab Details

From 1462+50 "A" To 1522+25 "PR-A", Use Rural Typical Sections
From 1522+25 "PR-A" To 1553+25 "PR-A", Use Urban Typical Sections

(Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: EOTB
CHECKED: WJW | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE CONSTRUCTION DETAILS RAMP "NER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	I006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IC-05	116-1 of 173
CONTRACT	PROJECT	
IR-33742	I006075	

DATE: 10/2/2012
TIME: 10:36:05 AM
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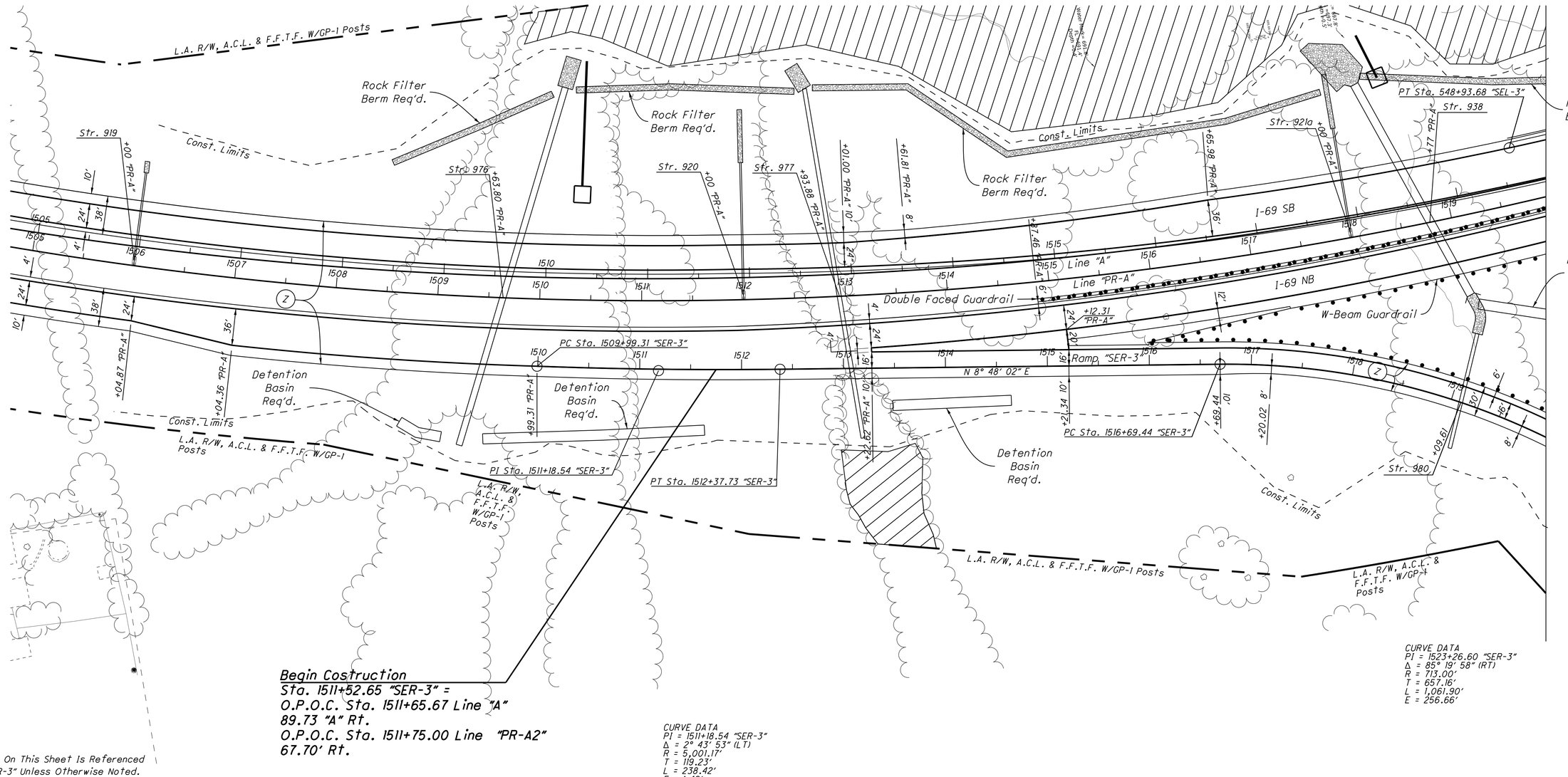
1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels
9/25/12 - Added Detail

CURVE DATA
PI = 1525+66.33 "PR-A"
Δ = 77° 37' 50" (LT)
R = 3,800.00'
T = 3,056.95'
L = 5,148.65'
E = 1,076.98'

CURVE DATA
PI = 1522+94.22 "A"
Δ = 71° 30' 58" (LT)
R = 4,000.00'
T = 2,880.44'
L = 4,992.77'
E = 929.19'

CURVE DATA
PI = 547+02.37 "SEL-3"
Δ = 10° 50' 51" (RT)
R = 2,027.04'
T = 192.46'
L = 383.77'
E = 9.12'



Begin Costruction
Sta. 1511+52.65 "SER-3" =
O.P.O.C. Sta. 1511+65.67 Line "A"
89.73 "A" Rt.
O.P.O.C. Sta. 1511+75.00 Line "PR-A2"
67.70' Rt.

CURVE DATA
PI = 1511+18.54 "SER-3"
Δ = 2° 43' 53" (LT)
R = 5,001.17'
T = 119.23'
L = 238.42'
E = 1.42'

CURVE DATA
PI = 1523+26.60 "SER-3"
Δ = 85° 19' 58" (RT)
R = 713.00'
T = 657.16'
L = 1,061.90'
E = 256.66'

Notes:

All Stationing On This Sheet Is Referenced From Line "SER-3" Unless Otherwise Noted.

See Interchange Drainage Details on Sheets 117-120 For Drainage Structure Information.

See Interchange R/W Details on Sheets 109-112 For Additional R/W Information.

See Sheet 16 For Moment Slab Details

From 1462+50 "A" To 1522+25 "PR-A", Use Rural Typical Sections
From 1522+25 "PR-A" To 1553+25 "PR-A", Use Urban Typical Sections

(Z) See Typical Sections For Construction Materials

For Drainage Structure Information See Detail Sheets 117-120

William James Williams REGISTERED No. 10810125 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH
CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE CONSTRUCTION DETAILS RAMP "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IC-06	116-2 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 09/25/2012
TIME: 10:36:07 AM
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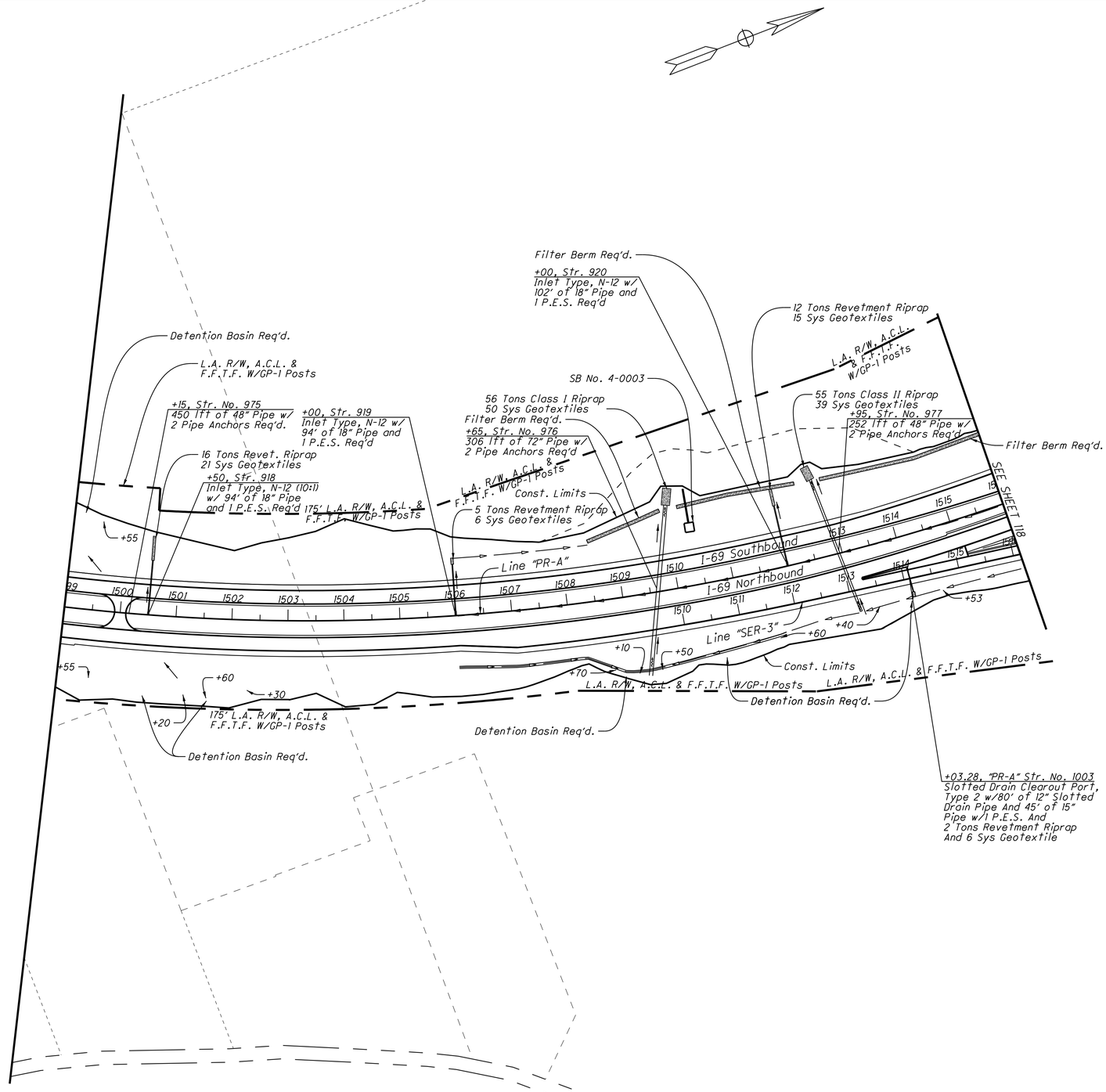
1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



For Riprap at Structure Outlet Details, Filter Berm Details, Spring Box Details, and Detention Basin Details see Sheets 101 - 104.

For geometric information, see Interchange Geometric Layout on Sheets 105 - 108.

For R/W information, see Interchange R/W Details on Sheets 109 - 112.

For additional information, see Interchange Construction Details on Sheets 113 - 116-2.

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH

CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE DRAINAGE DETAILS STA. 1499+00 TO STA. 1516+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	DD-01	117 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:36:09 AM
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1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

For Riprap at Structure Outlet Details, Filter Berm Details, Spring Box Details, and Detention Basin Details see Sheets 101 - 104.

For geometric information, see Interchange Geometric Layout on Sheets 105 - 108.

For R/W information, see Interchange R/W Details on Sheets 109 - 112.

For additional information, see Interchange Construction Details on Sheets 113 - 116-2.

William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL	[signature] DESIGN ENGINEER	9/4/2012 DATE	
DESIGNED:	JB	DRAWN:	KCH
CHECKED:	WJW	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

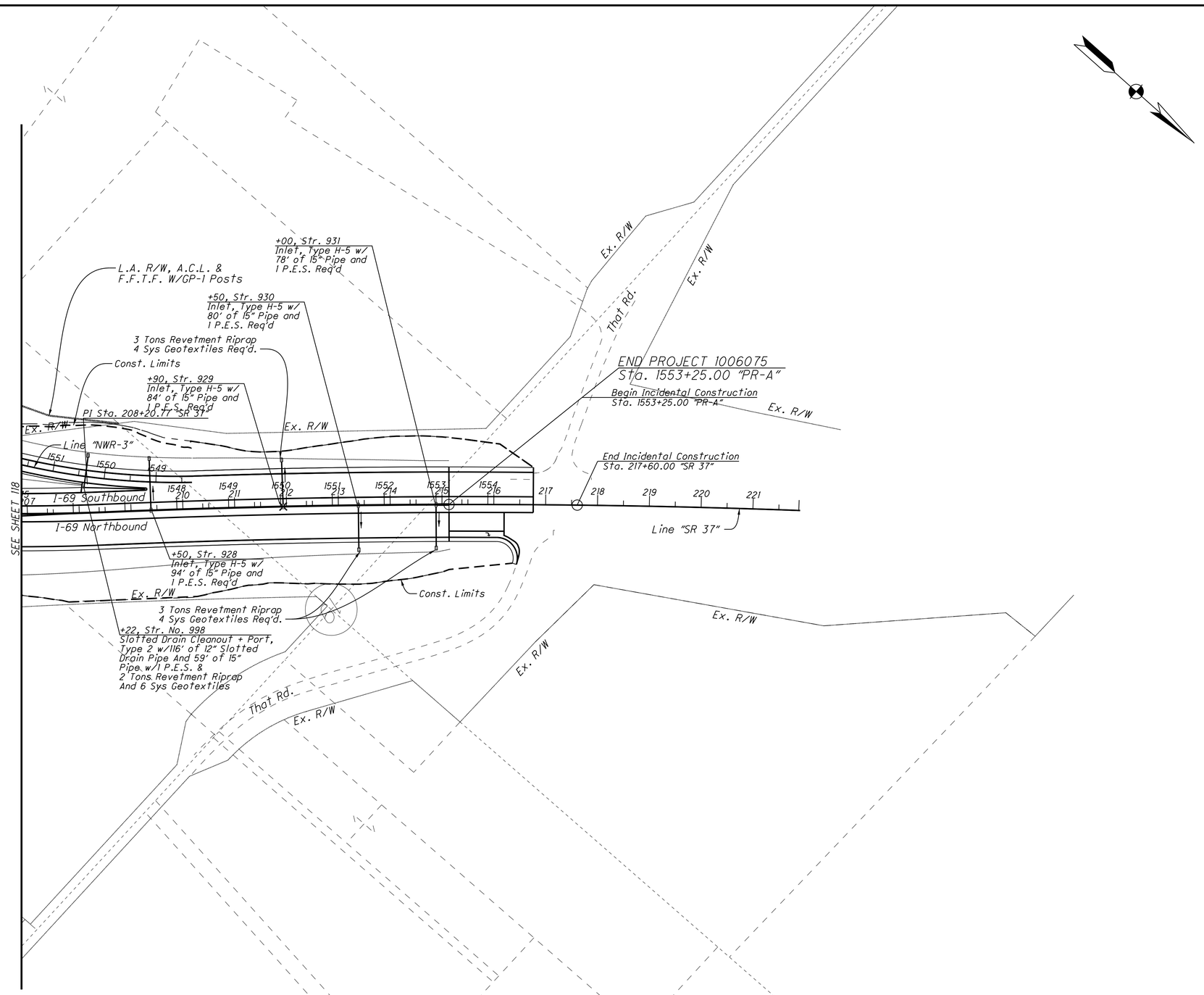
INTERCHANGE DRAINAGE DETAILS STA. 1516+00 TO STA. 1545+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	DD-02	118 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/2/2012
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\9_Detail Sheets\H_Drainage Details\25627500RD_DD02_A2.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



For Riprap at Structure Outlet Details, Filter Berm Details, Spring Box Details, and Detention Basin Details see Sheets 101 - 104.

For geometric information, see Interchange Geometric Layout on Sheets 105 - 108.

For R/W information, see Interchange R/W Details on Sheets 109 - 112.

For additional information, see Interchange Construction Details on Sheets 113 - 116-2.

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: KCH

CHECKED: WJW | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE DRAINAGE DETAILS STA. 1545+00 TO STA. 1560+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	DD-03	119 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:38:12 AM
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1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

For Riprap at Structure Outlet Details, Filter Berm Details, Spring Box Details, and Detention Basin Details see Sheets 101 - 104.

For geometric information, see Interchange Geometric Layout on Sheets 105 - 108.

For R/W information, see Interchange R/W Details on Sheets 109 - 112.

For additional information, see Interchange Construction Details on Sheets 113 - 116-2.

William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL	[signature] DESIGN ENGINEER	9/4/2012 DATE	
DESIGNED:	JB	DRAWN:	KCH
CHECKED:	WJW	CHECKED:	MDO

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE DRAINAGE DETAILS
RAMP "NER-3", "NWR-3", "SEL-3", & "SER-3"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 100'	N/A	
VERTICAL SCALE	DESIGNATION	
NONE	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	DD-04	120 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/2/2012 TIME: 10:26:43 AM LOCATION: N:\Projects\...\DD04_A2.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	9/4/2012 DATE
DESIGNED: JB	DRAWN: ETD	
CHECKED: RT	CHECKED: WJW	

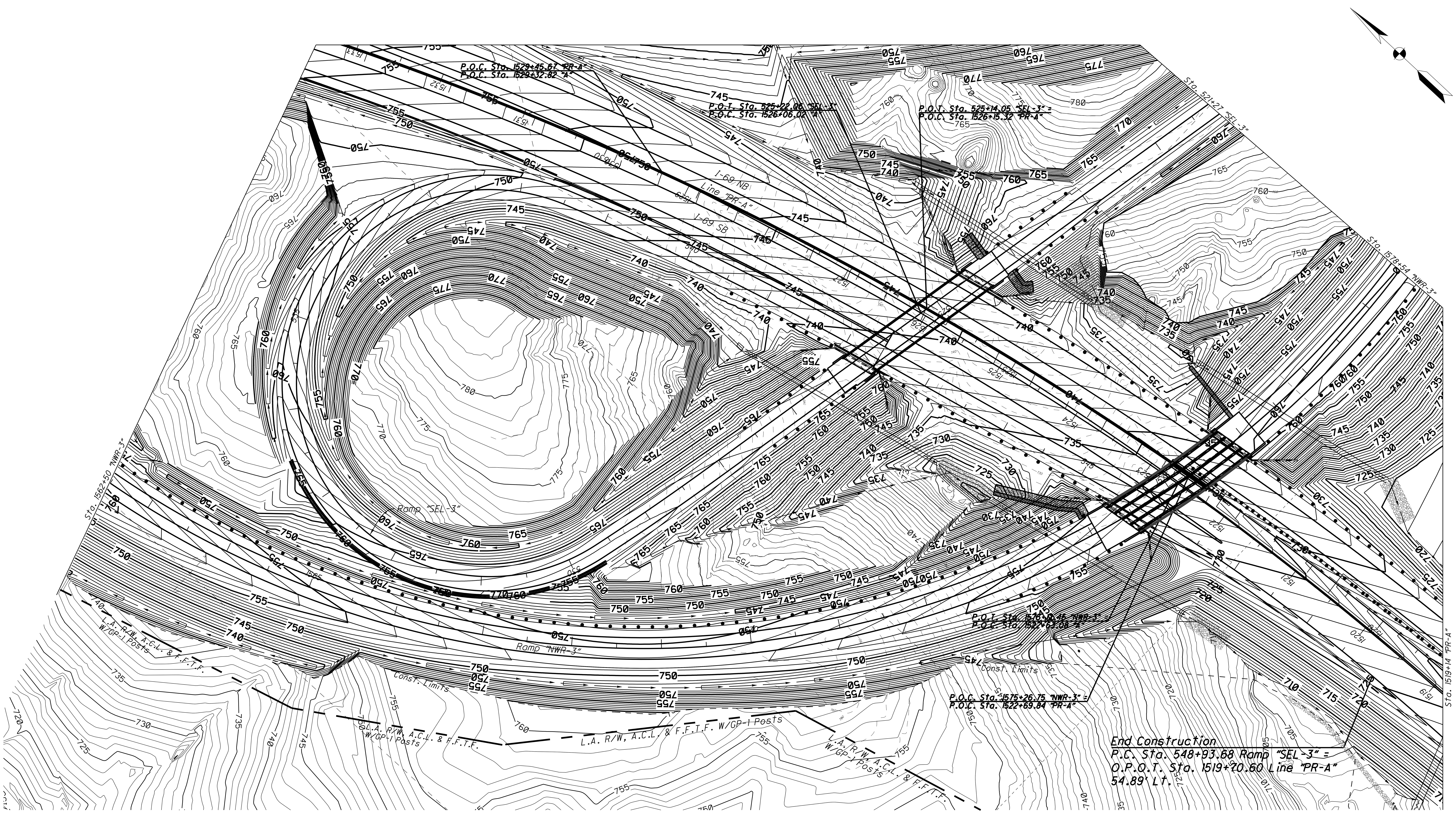
William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE GRADING DETAILS
RAMP "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE	
1" = 50'		
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IG-01	121 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

⚠ 9/25/12 - Revised Ditches and Drainage
⚠1 9/25/12 - Updated Notes And Labels



RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

DESIGNED: JB — DRAWN: ETD
CHECKED: RT — CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

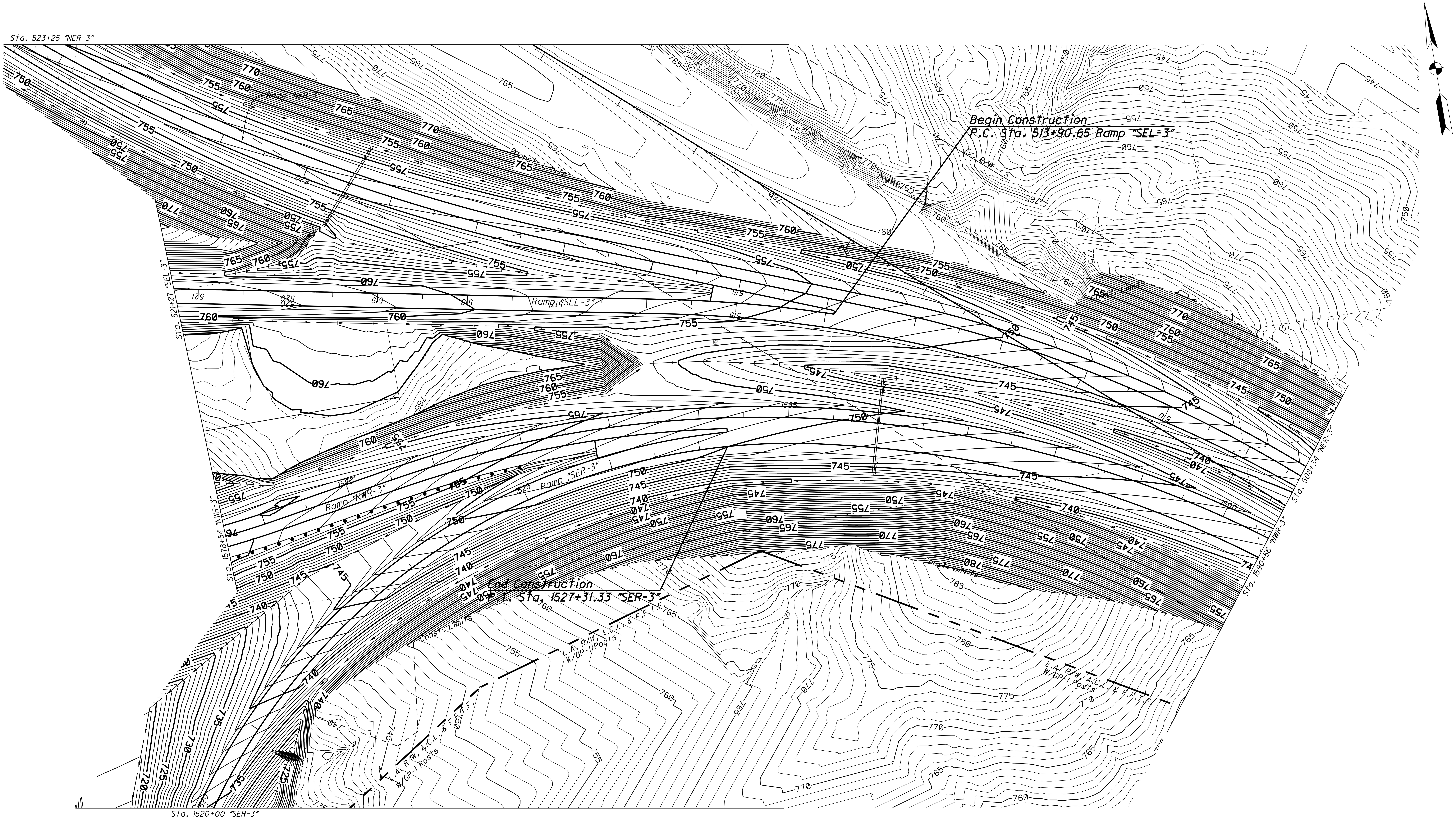
INTERCHANGE GRADING DETAILS RAMPS "NWR-3" "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IG-02	122 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/2/2012
LOCATION: N:\Projects\2562750\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\9_Detail Sheets\G_Grading Plans\2562750IG02-S9R.dgn

1 9/25/12 - Revised Ditches and Drainage



RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

William James Williams — REGISTERED No. 10810125 STATE OF INDIANA — PROFESSIONAL ENGINEER

DESIGNED: JB — DRAWN: ETD

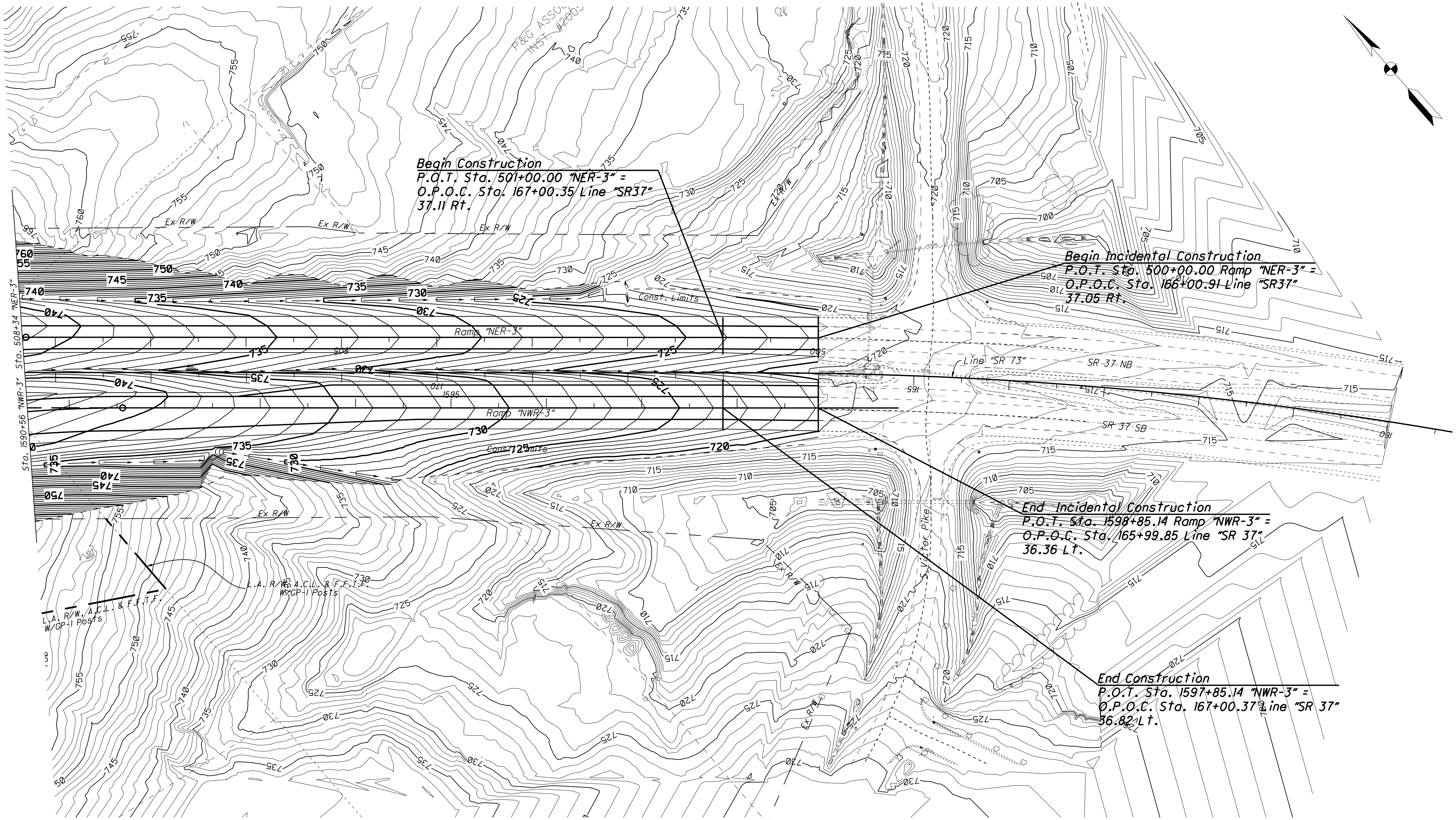
CHECKED: RT — CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE GRADING DETAILS
RAMPS "NER-3" "NWR-3" SEL-3" "SER-3"

HORIZONTAL SCALE		BRIDGE FILE
1" = 50'		
VERTICAL SCALE		DESIGNATION
N/A		1006075
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IG-03	123 of 173
CONTRACT		PROJECT
IR-33742		1006075

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



RECOMMENDED FOR APPROVAL		DESIGN ENGINEER	9/4/2012 DATE
DESIGNED:	JB	DRAWN:	ETD
CHECKED:	RT	CHECKED:	WJW

William James Williams — Registered No. 10810125 — State of Indiana — Professional Engineer

INDIANA DEPARTMENT OF TRANSPORTATION

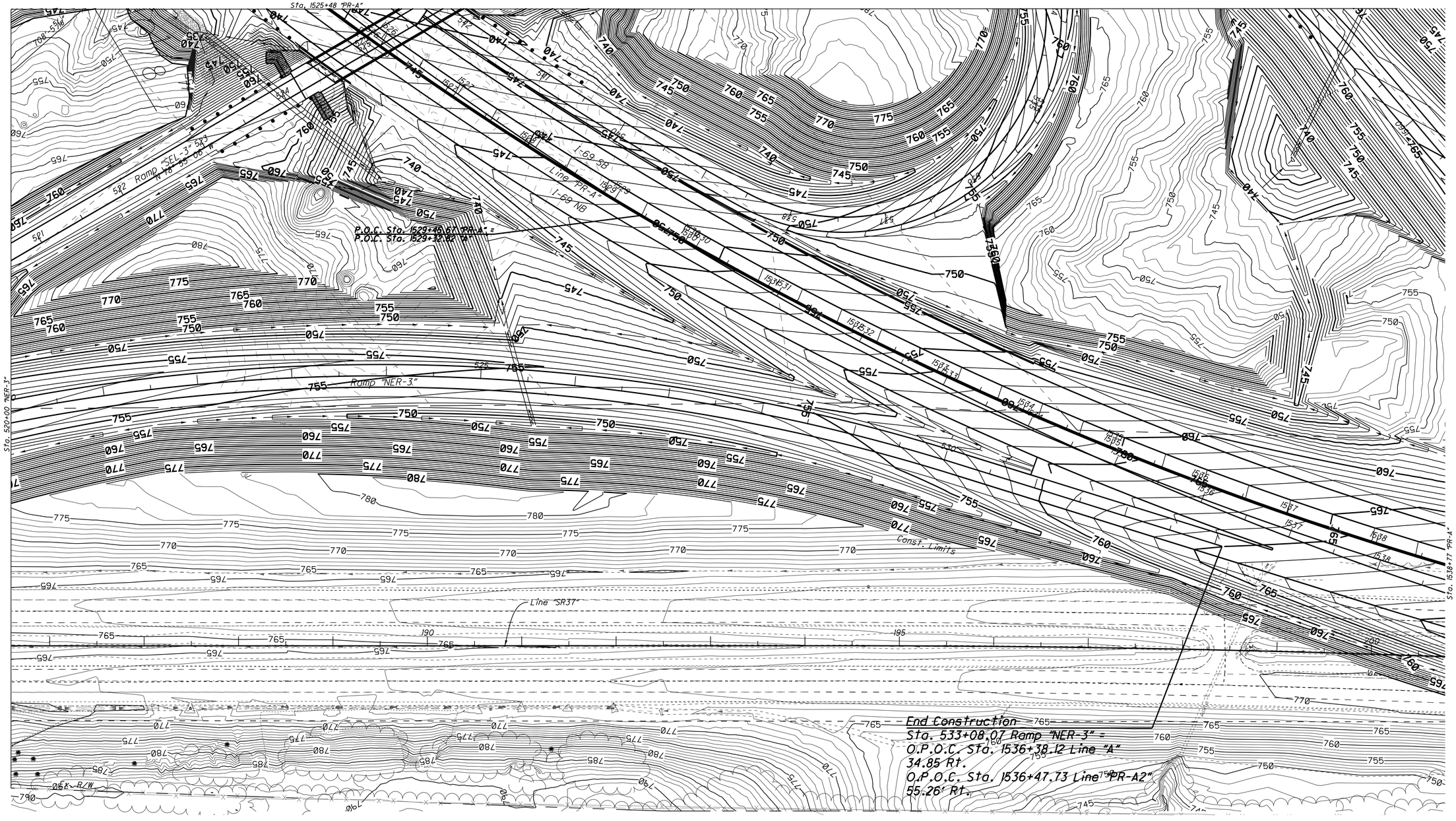
INTERCHANGE GRADING DETAILS
RAMPS "NER-3" "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IG-04	124 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
LOCATION: N:\Projects\256275001\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\9_Detail Sheets\G_Grading Plans\256275001G04-S9R.dgn

1 — 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels

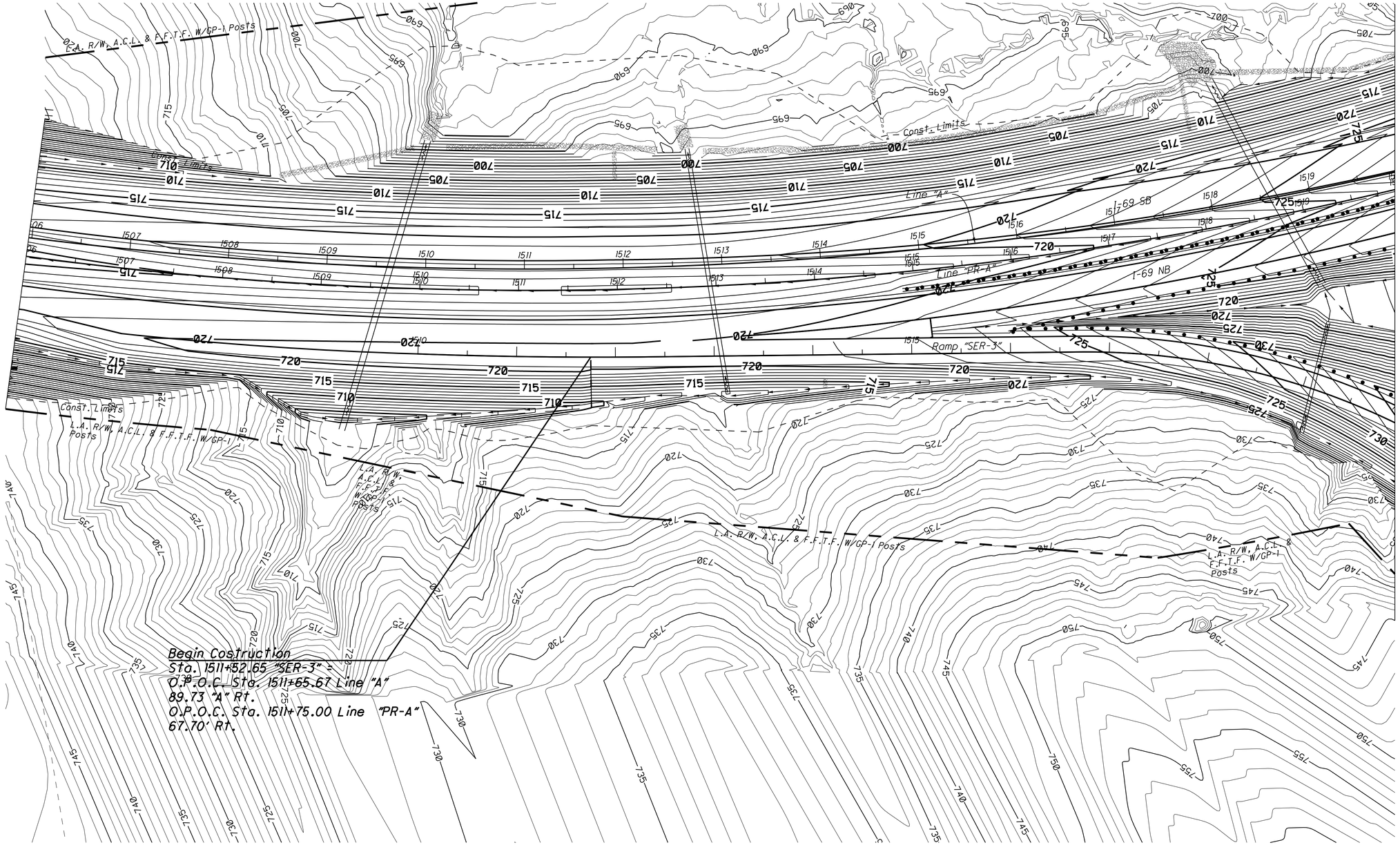


RECOMMENDED FOR APPROVAL	William J. Williams 9/4/2012	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 50' / BRIDGE FILE:
DESIGN ENGINEER	DATE		VERTICAL SCALE: N/A / DESIGNATION: 1006075
DESIGNED: JB	DRAWN: ETD	INTERCHANGE GRADING DETAILS RAMP "NER-3"	SURVEY BOOK: ELECTRONIC / AERIAL; PAGE: IG-05; SHEETS: 125 of 173
CHECKED: RT	CHECKED: WJW		CONTRACT: IR-33742 / PROJECT: 1006075

William James Williams — No. 10810125 — STATE OF INDIANA — REGISTERED PROFESSIONAL ENGINEER

DATE: 10/3/2012
TIME: 10:36:28 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\T\Transp\CaddWood\SSY9_Detail Sheets\GL_Grading Plans\25627500GD5-SR.dgn

1 9/25/12 - Revised Ditches and Drainage
9/25/12 - Updated Notes And Labels



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	9/4/2012 DATE	
DESIGNED: JB	DRAWN: ETD		
CHECKED: RT	CHECKED: WJW		

William James Williams — REGISTERED — No. 10810125 — STATE OF INDIANA — PROFESSIONAL ENGINEER

INDIANA DEPARTMENT OF TRANSPORTATION

INTERCHANGE GRADING DETAILS RAMP "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	IG-06	126 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:36:36 AM
LOCATION: N:\Projects\25827300\Y Drawings\V4 Trans\Trans\Cadd\Roadway\IG_Detail Sheets\IG_Grading Plans\25827300106-SPR.dgn

1 9/25/12 - Revised Ditches and Drainage

I-69 NB

Line "PR-A"

Line "SR37"

210 1548 209 1547 208 1546 207 545

+43, "PR-A"
15.3' LT.
773.14'

+00, "PR-A"
15.3' LT.
773.38'

+50, "PR-A"
15.3' LT.
773.60'

+16, "PR-A"
15.3' LT.
773.71'

I-69 SB

+43, "PR-A"
39.3' LT.
772.68'

+10.3, "PR-A"
39.3' LT.
772.70'

+00, "PR-A"
39.3' LT.
772.69'

+60.5, "PR-A"
39.3' LT.
772.66'

+50, "PR-A"
39.3' LT.
772.64'

+16, "PR-A"
39.3' LT.
772.57'

Str. No. 998

Ramp "NWR-3"

+17.3, "NWR-3"
12.0' LT.
772.57'

1549

+50, "NWR-3"
12.0' LT.
772.43'

+60.4, "NWR-3"
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772.36'

+00, "NWR-3"
12.0' LT.
772.02'

+10.4, "NWR-3"
12.0' LT.
771.92'

+41, "NWR-3"
12.0' LT.
771.61'

+17, "NWR-3"
771.87'

+50, "NWR-3"
771.68'

1550

+00, "NWR-3"
771.23'

+41, "NWR-3"
770.84'

1551

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/1/2012 DATE

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

DESIGNED: JB DRAWN: ETD

CHECKED: RT CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

GORE DETAIL SHEET
RAMP "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GD-01	127 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

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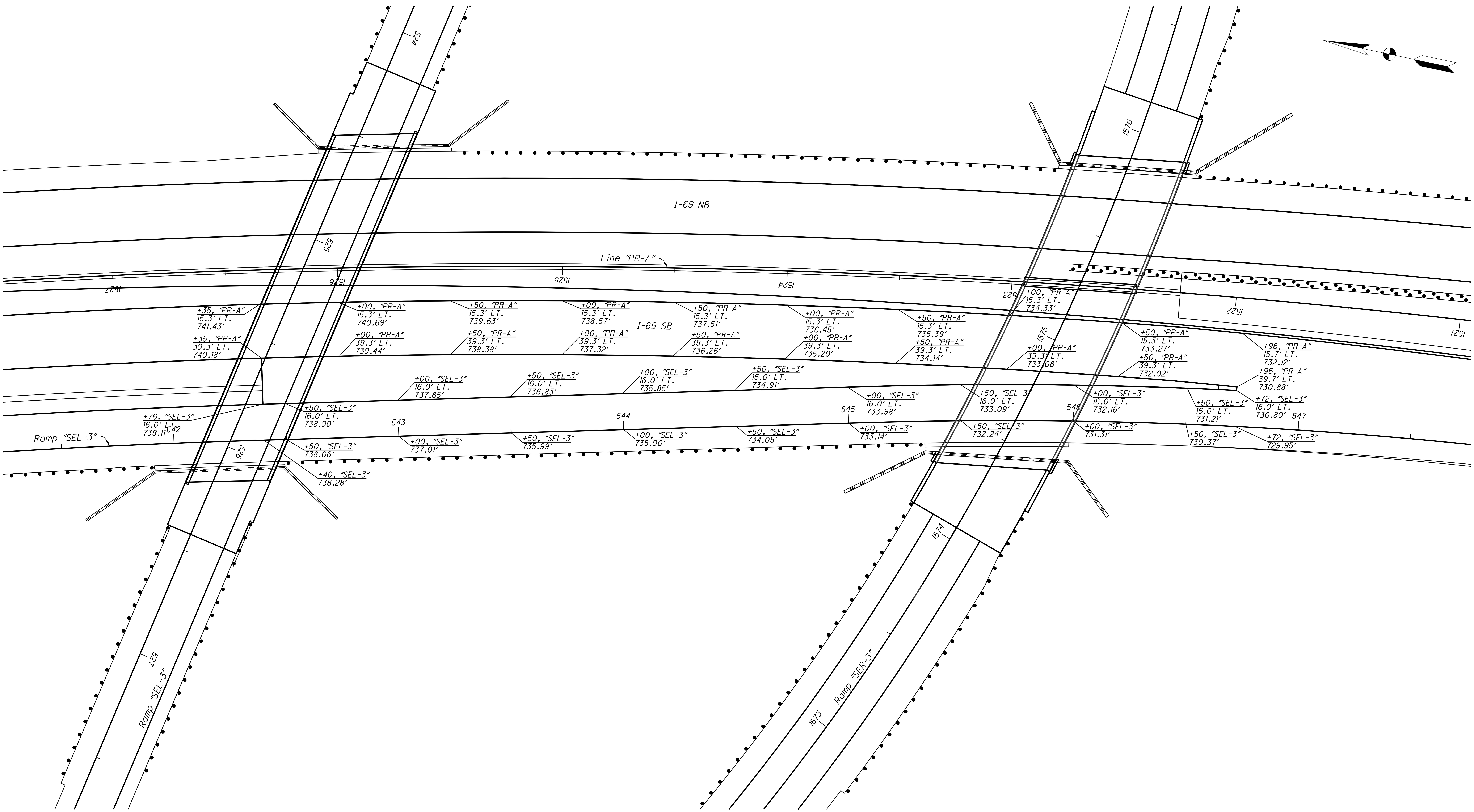
1 9/25/12 - Updated Notes And Labels



RECOMMENDED FOR APPROVAL	DESIGN ENGINEER 9/4/2012 DATE
DESIGNED: JB	DRAWN: ETD
CHECKED: RT	CHECKED: WJW

William James Williams REGISTERED No. 10810125 STATE OF INDIANA PROFESSIONAL ENGINEER

INDIANA DEPARTMENT OF TRANSPORTATION

GORE DETAIL SHEET
RAMP "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	
VERTICAL SCALE	DESIGNATION
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SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	GD-02 / 128 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/3/2012
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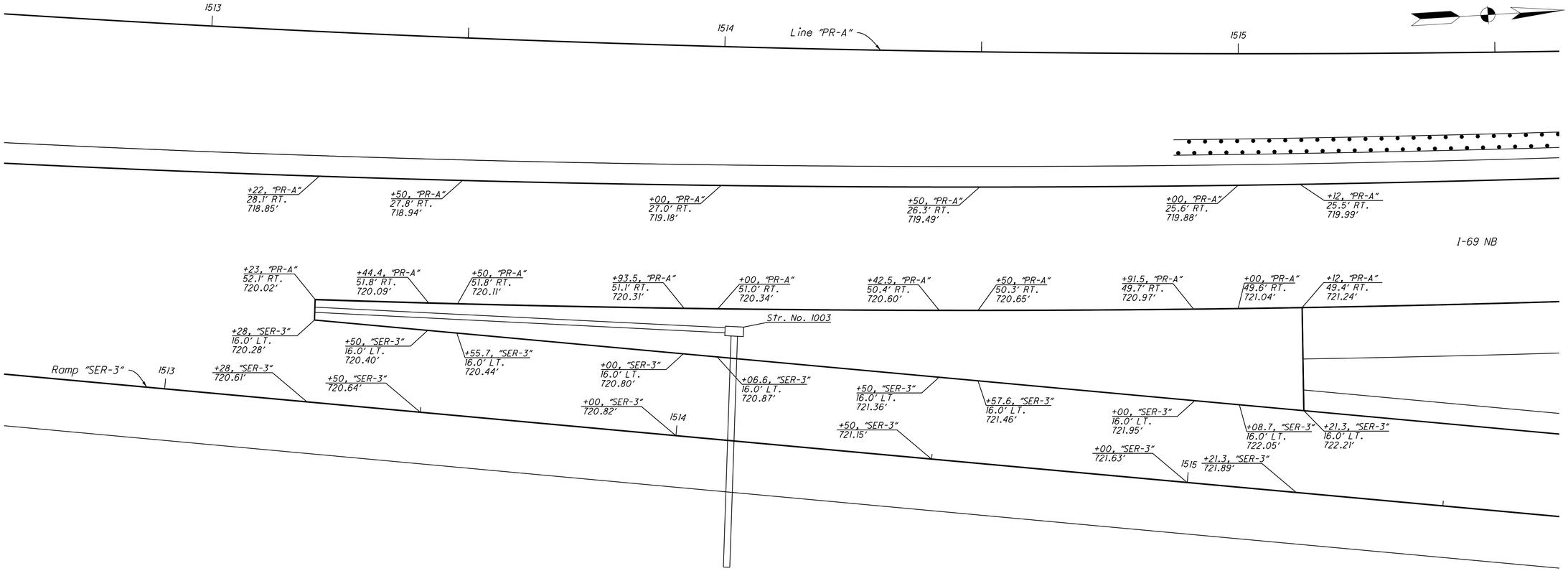
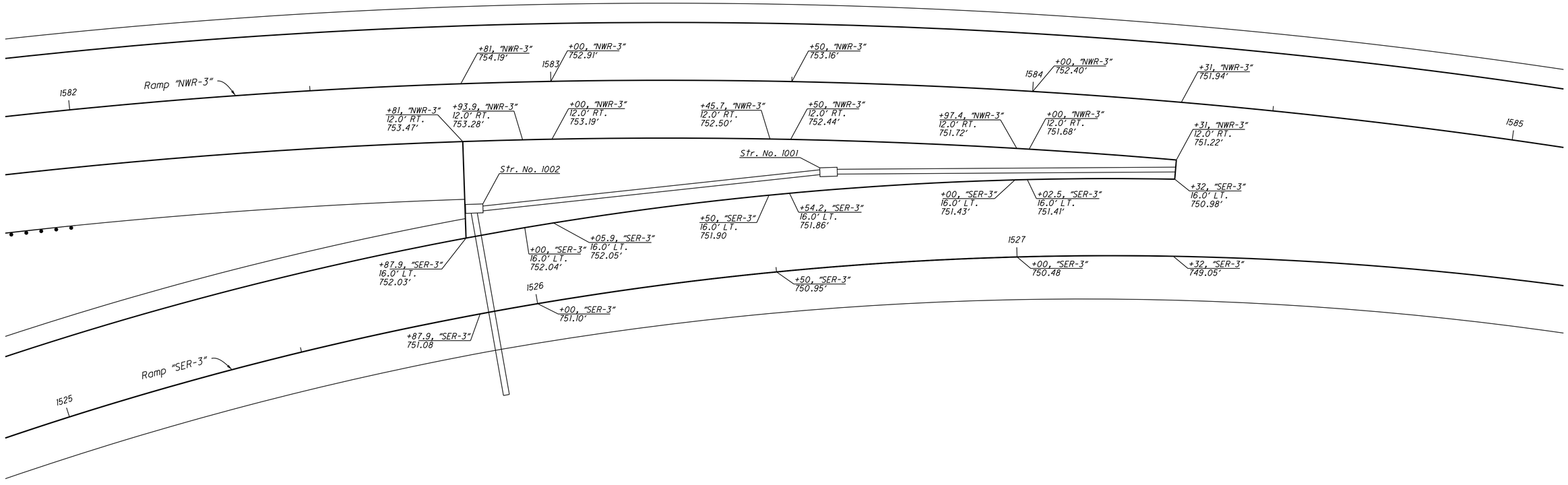
1 9/25/12 - Updated Notes And Labels



	RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE	**INDIANA DEPARTMENT OF TRANSPORTATION**	HORIZONTAL SCALE: 1" = 10' / VERTICAL SCALE: N/A / BRIDGE FILE: / DESIGNATION: 1006075
William James Williams REGISTERED No. 10810125 STATE OF INDIANA PROFESSIONAL ENGINEER	DESIGNED: JB DRAWN: ETD CHECKED: RT CHECKED: WJW	GORE DETAIL SHEET RAMP "SER-3"	SURVEY BOOK / PAGE / SHEETS: ELECTRONIC / AERIAL GD-03 129 of 173; CONTRACT: IR-33742; PROJECT: 1006075

DATE 10/3/2012
TIME 09:45 AM
LOCATION N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\Cadd\Road\SSYS_Detail Sheets\C_Spot Elevation Details\25627500GD03-SS.dgn

1 9/25/12 - Updated Notes And Labels



William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD

CHECKED: RT | CHECKED: WJW

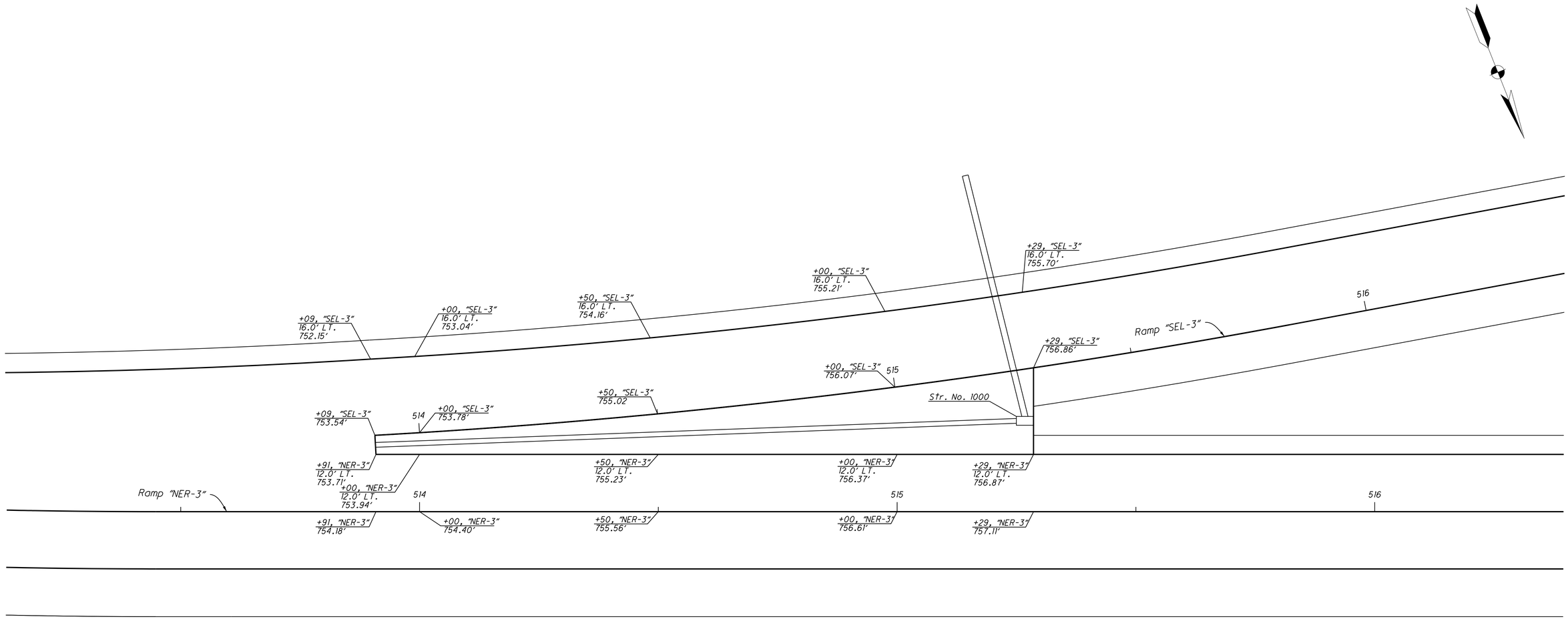
INDIANA DEPARTMENT OF TRANSPORTATION

GORE DETAIL SHEET RAMP "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GD-04	130 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 9/25/12 - Updated Notes And Labels



William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 — DATE

DESIGNED: JB | DRAWN: ETD

CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

GORE DETAIL SHEET RAMP "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 10'	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
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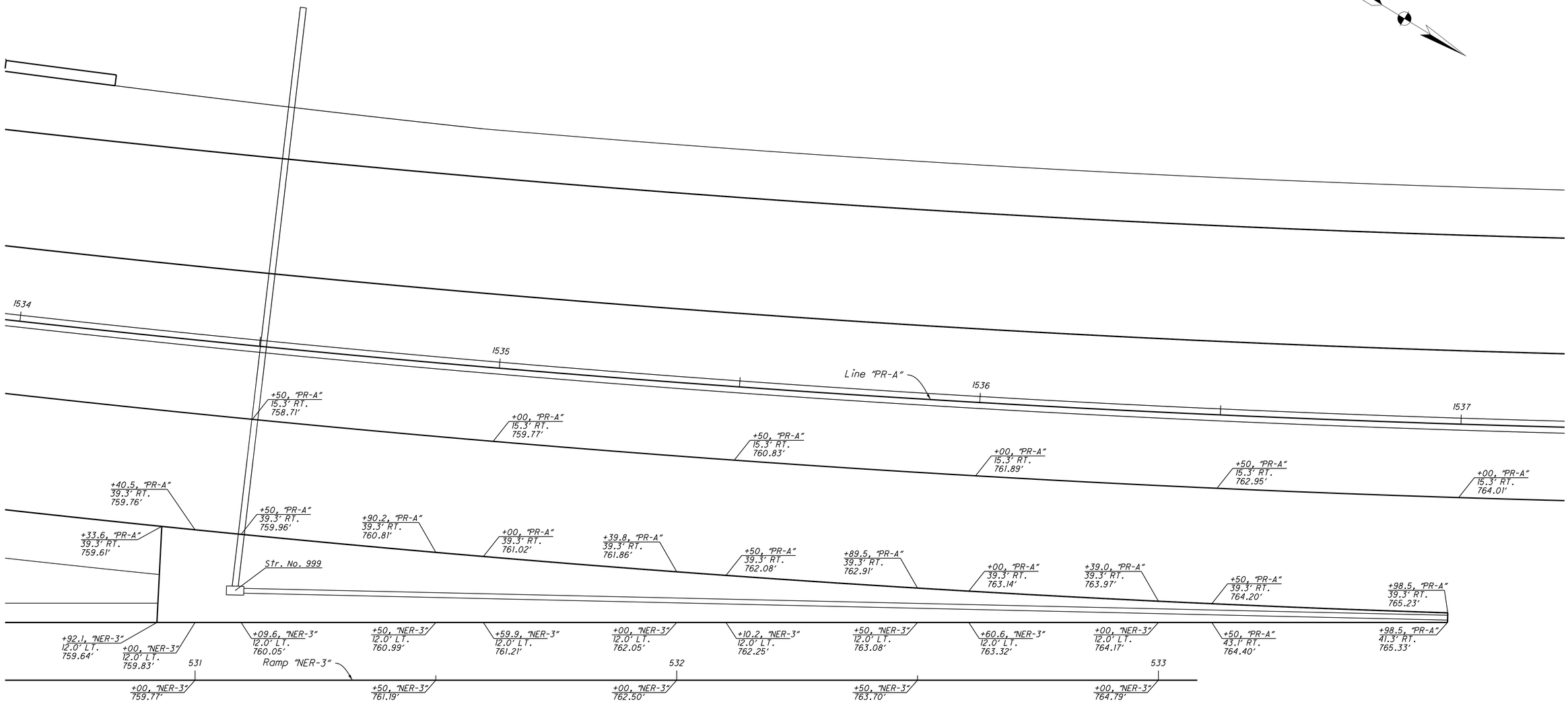
CONTRACT	PROJECT	
IR-33742	1006075	

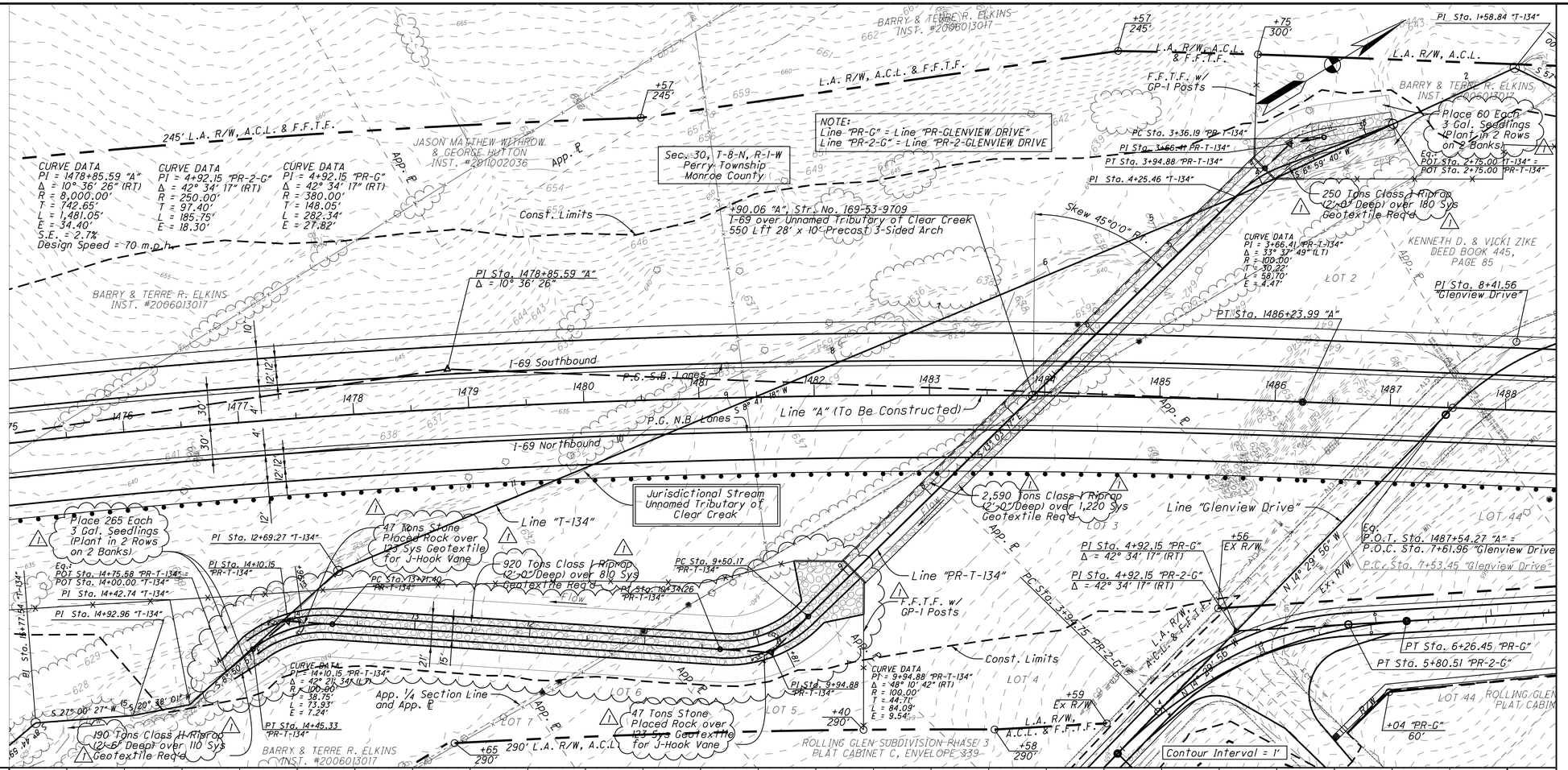
1 9/25/12 - Updated Notes And Labels



RECOMMENDED FOR APPROVAL	William J. Williams 9/4/2012	INDIANA DEPARTMENT OF TRANSPORTATION	HORIZONTAL SCALE: 1" = 10' / BRIDGE FILE:
	DESIGN ENGINEER — DATE		VERTICAL SCALE: N/A / DESIGNATION: 1006075
DESIGNED: JB	DRAWN: ETD	GORE DETAIL SHEET RAMP "NER-3"	SURVEY BOOK: ELECTRONIC / AERIAL / PAGE: GD-06 / SHEETS: 131-1 of 173
CHECKED: RT	CHECKED: WJW		CONTRACT: IR-33742 / PROJECT: 1006075

William James Williams — Registered — No. 10810125 — State of Indiana — Professional Engineer

1 9/25/12 - Added Sheet



Notes:
1. Riprap Channel Protection shown assumes no durable rock within Channel relocation limits. However, quantities are computed assuming 50% of the relocated channel will encounter durable rock.
2. See Sheet 99 for Typical Channel Sections & Stream Mitigation Details.

CHANNEL CHANGE LAYOUT

PRECAST REINFORCED CONCRETE 3 SIDED STRUCTURE
1 SPAN @ 28'-0": RISE 10'-0": 45° SKEW RIGHT
I-69 OVER UNNAMED TRIBUTARY OF CLEAR CREEK

DATE: 10/3/2012
TIME: 11:26:00 AM
LOCATION: K:\105141 - I-69 Section 4\Microstation\Sheet Files\25627500BR_CH01_134.dgn

ANNETTE WAGNER FULKERSON REGISTERED No. PE60870080 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JWF | DRAWN: BDM
CHECKED: BMG | CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

CHANNEL CHANGE LAYOUT
I-69 OVER UNNAMED TRIBUTARY OF CLEAR CREEK

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	169-53-9709
VERTICAL SCALE	DESIGNATION
1" = 10'	1172102

SURVEY BOOK	PAGE	SHEETS
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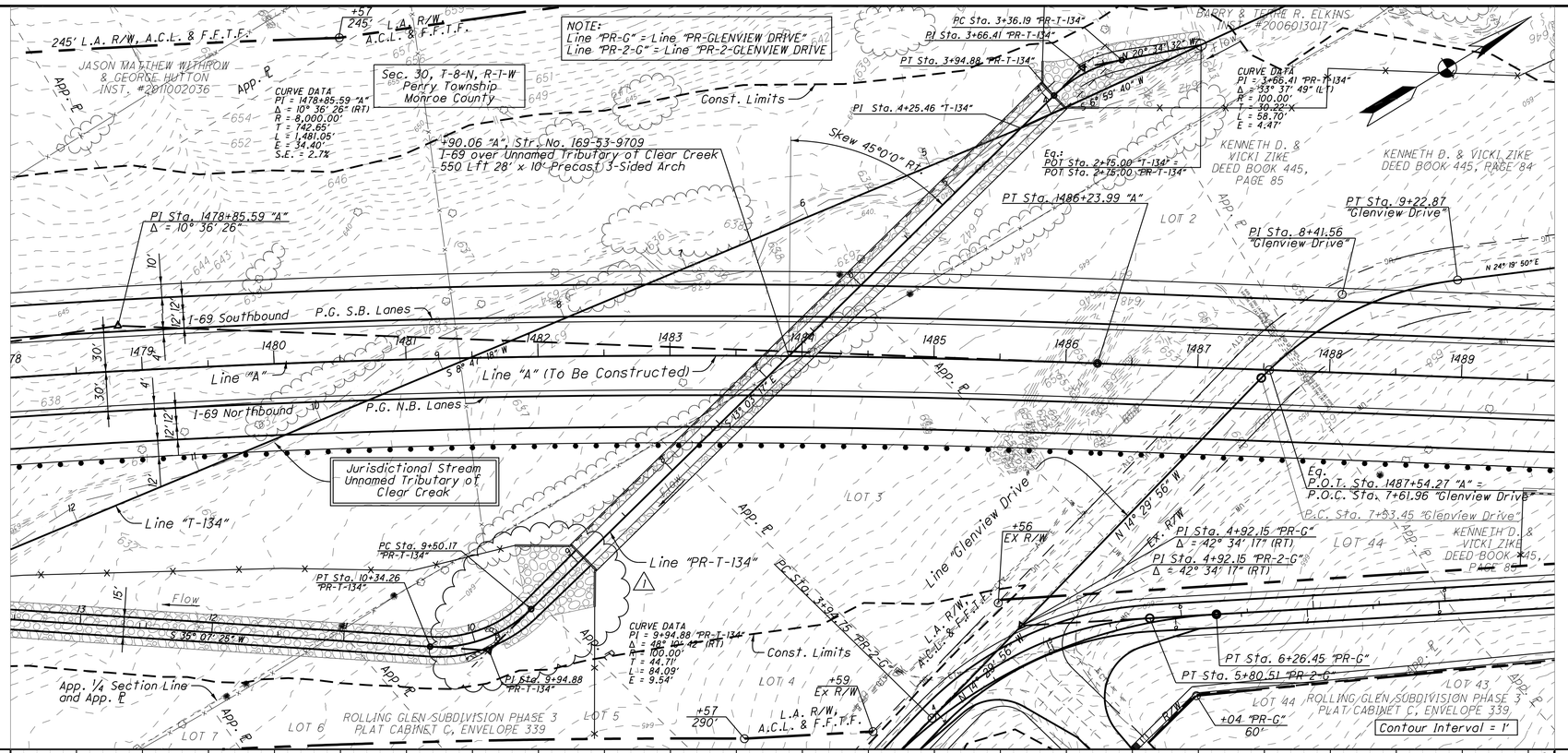
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Culvert length shortened, Typical Channel Section moved to Detail Sheet, Stream Mitigation added.



PRESENT STRUCTURE

None.

UTILITIES

See Page IX-01.

EARTHWORK SUMMARY

See Road Plans, Des. No. 1006075

HYDRAULIC DATA

Drainage Area	0.66 sq. mi.
O100 Discharge	600 cfs
O100 Elevation	640.38 ft ⚠1
Gross Waterway Area Req'd (below O100 El.)	82.6 sft
Gross Waterway Area Provided (below O100 El.)	82.6 sft
Proposed Road Overflow Area	N/A
O100 Velocity	8.8 ft/s
Proposed Backwater	0.05 ft
Low Structure El.	645.43 (d.s.)
Flowline El	637.43 (d.s.) ⚠1

ALTERNATE STRUCTURE - FLAT TOP CULVERT 28' x 8' (6' Rise Above ℄)

Gross Waterway Area Req'd (below O100 El.)	82.7 sft

ALTERNATE STRUCTURE - TRUE ARCH CULVERT 30' x 12.5' (10'-6" Rise Above ℄)

Gross Waterway Area Req'd (below O100 El.)	84.6 sft

Note:
See Sheet 21 for Benchmark Data
See Sheet 99 for Typical Channel Sections
See Sheet 99 & 132 for Stream Mitigation Details
Riprap Channel Protection shown assumes no durable rock within channel relocation Limits.

LAYOUT

PRECAST REINFORCED CONCRETE
3 SIDED STRUCTURE
1 SPAN @ 28'-0" RISE 10'-0" 45° SKEW RIGHT
I-69 OVER UNNAMED TRIBUTARY OF CLEAR CREEK

JANETTE WAGNER FULKERSON REGISTERED No. PE60870080 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/4/2012

DESIGNED: JWF | DRAWN: BDM | CHECKED: BMG | CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

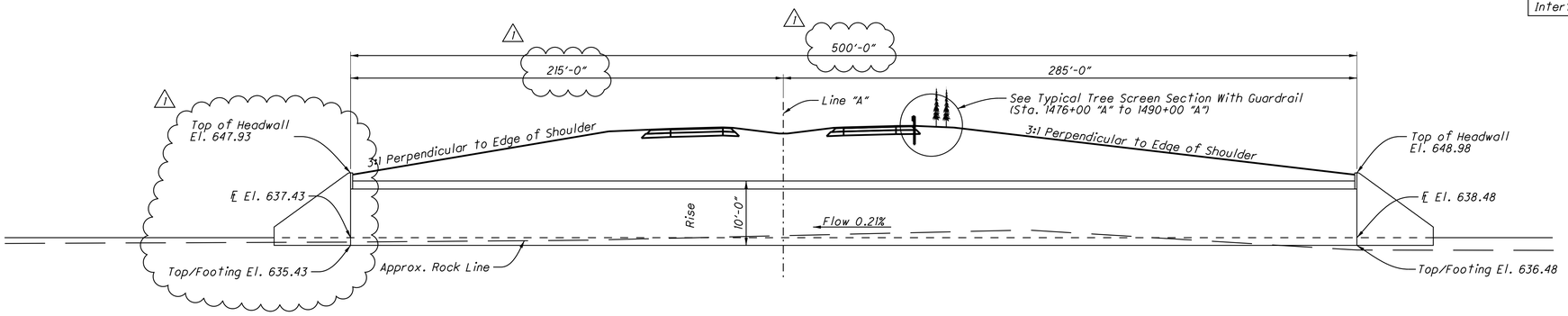
LAYOUT
I-69 OVER UNNAMED TRIBUTARY OF CLEAR CREEK

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	169-53-9709
VERTICAL SCALE	DESIGNATION
1" = 10'	1172102
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	LY-01 / 133 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/3/2012
TIME: 11:26:02 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\25627500BR_LY01_134.dgn

⚠1 09/25/12 - Culvert length shortened, Stream mitigation

FOUNDATION REQUIREMENTS	
Allowable Factored Bearing Resistance =	25,000 psf
Resistance Factor =	0.45
Interface Friction Angle Between Str. Backfill and Concrete =	17°
Angle of internal friction for Structure Backfill =	32°
Interface Friction Angle Between Limestone and Concrete =	35°



SECTION "B-B"

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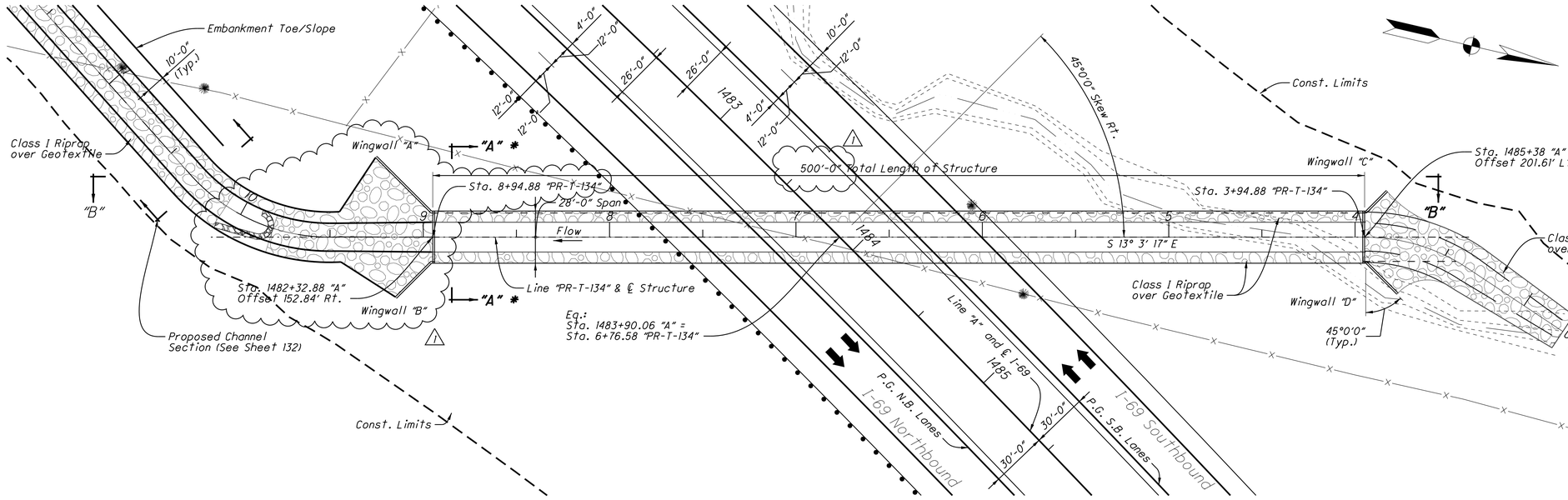

PLAN

Scale: 1" = 30'-0"

DESIGN DATA

Live Load

The Structure shall be designed for HL-93 Loading in accordance with the AASHTO LRFD Bridge Design Specifications, 5th edition (2010) and subsequent interims.

Dead Load

Designed for self-weight plus 35 psf wearing surface

SEISMIC DESIGN DATA

Seismic Performance Zone = 1

GENERAL NOTES

No. 8 Aggregate shall be used for Structure Backfill.

If cohesive soils are encountered at the proposed footing grade, they shall be completely removed to sound rock and replaced with Portland Cement Concrete, or the bottom of the footing shall be extended to the sound rock elevation. All associated costs shall be included in the cost of the structure.

A representative of the Geotechnical Engineer should verify the bearing conditions at the footing grade prior to foundation construction.

See Geotechnical Technical Memorandum, Str. 169-53-9709 for additional information.

1 **Channel Protection assumes no durable rock within relocation limits shown.**

- **See Sheet 135 for Section A-A.**
- **See Sheet 99 & 132 for Stream Mitigation Details.**

GENERAL PLAN

PRECAST REINFORCED CONCRETE
3 SIDED STRUCTURE
1 SPAN @ 28'-0": RISE 10'-0": 45° SKEW RIGHT
I-69 OVER UNNAMED TRIBUTARY OF CLEAR CREEK

An Alternate Structure type Flat Top Culvert with a 28'-0" perpendicular span and 8' rise may be substituted for the structure shown on the Layout Sheet.

An Alternate Structure type True Arch Culvert with a 30'-0" perpendicular span and 12.5' rise may be substituted for the structure shown on the Layout Sheet.

JANETTE WAGNER FULKERSON
REGISTERED
No. PE60870080
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JWF | DRAWN: BDM
CHECKED: BMG | CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
I-69 OVER UNNAMED TRIBUTARY OF CLEAR CREEK

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	169-53-9709
VERTICAL SCALE	DESIGNATION
AS NOTED	I172102

SURVEY BOOK	PAGE	SHEETS
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CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 11:26:04 AM
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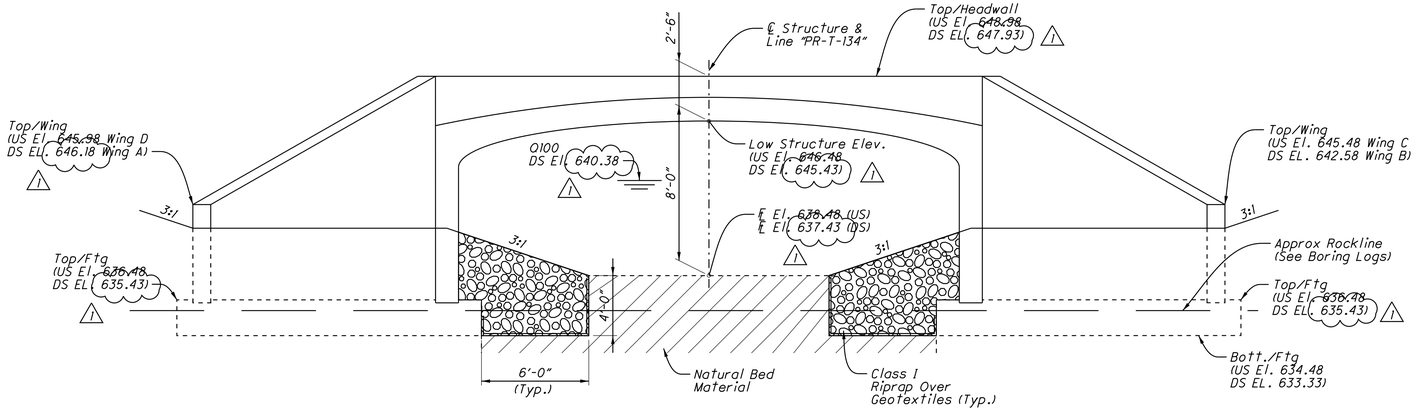
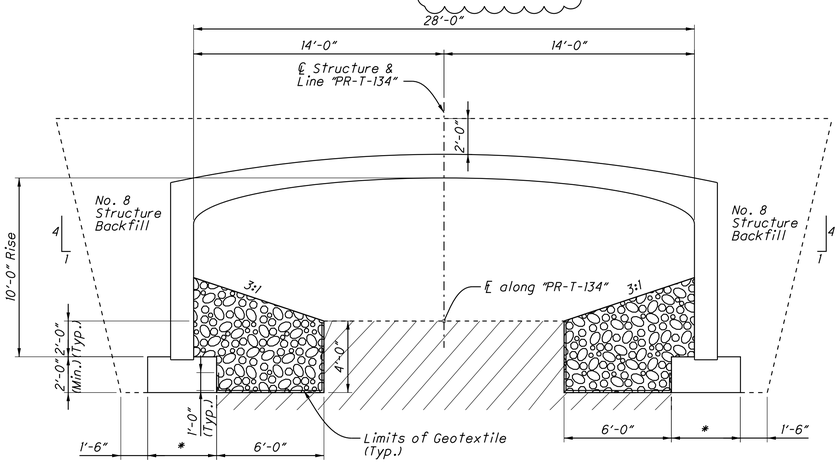
1 09/25/12 - Culvert length shortened, Stream mitigation



END ELEVATION

(Downstream Elev. Shown w/ Channel Relocation Section. Upstream Elev. Similar But Without Bench.)

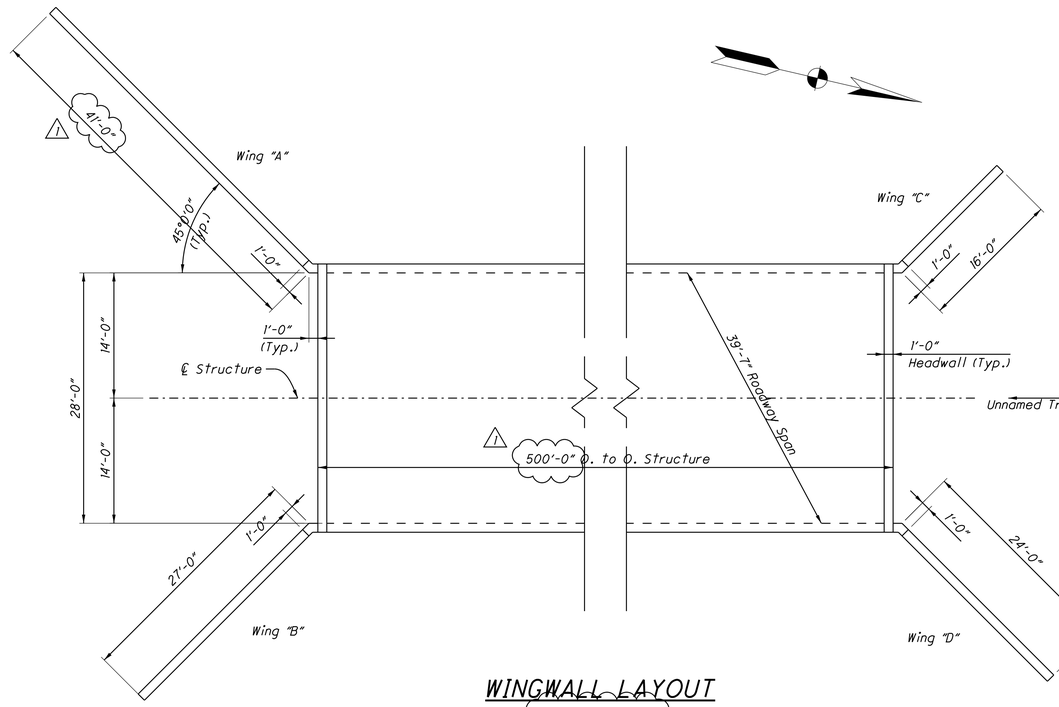
Scale: Not to Scale



* Per Manufacturer Design

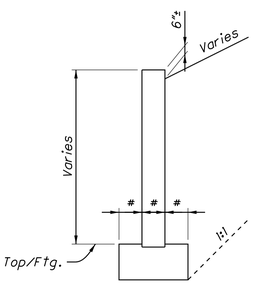
SECTION "A-A"

Scale: ¼" = 1'-0"



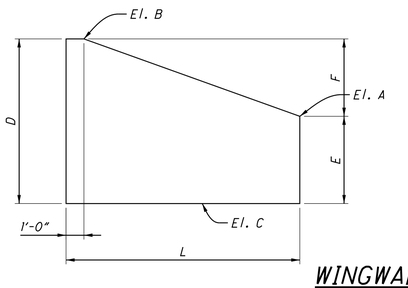
WINGWALL LAYOUT

Scale: ⅛" = 1'-0"



WINGWALL TYPICAL SECTION

Scale: NTS



WINGWALL ELEVATION

Scale: NTS

WINGWALL	DOWNSTREAM INVERT		UPSTREAM INVERT	
⚠1	A	B	C	D
El. A (ft)	646.18	642.68	645.48	645.98
El. B (ft)	647.93	647.93	648.98	648.98
El. C (ft)	635.43	635.43	636.48	636.48
D (ft)	12.50	12.50	12.50	12.50
E (ft)	10.75	7.25	9.00	9.50
F (ft)	1.75	5.25	3.50	3.00
L (ft)	41.00	27.00	16.00	24.00
Area (Sft)	480	270	180	270

Note:
For General Notes, Design Data, Plan and Elevation Views, See Sheet 134.

GENERAL PLAN

PRECAST REINFORCED CONCRETE
3 SIDED STRUCTURE
1 SPAN @ 28'-0": RISE 10'-0": 45° SKEW RIGHT
I-69 OVER UNNAMED TRIBUTARY OF CLEAR CREEK

ANNETTE WAGNER FULKERSON REGISTERED No. PE60870080 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JWF | DRAWN: BDM | CHECKED: BMG | CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
I-69 OVER UNNAMED TRIBUTARY OF CLEAR CREEK

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	169-53-9709
VERTICAL SCALE	DESIGNATION
AS NOTED	1172102

SURVEY BOOK	PAGE	SHEETS
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IR-33742	1006075	

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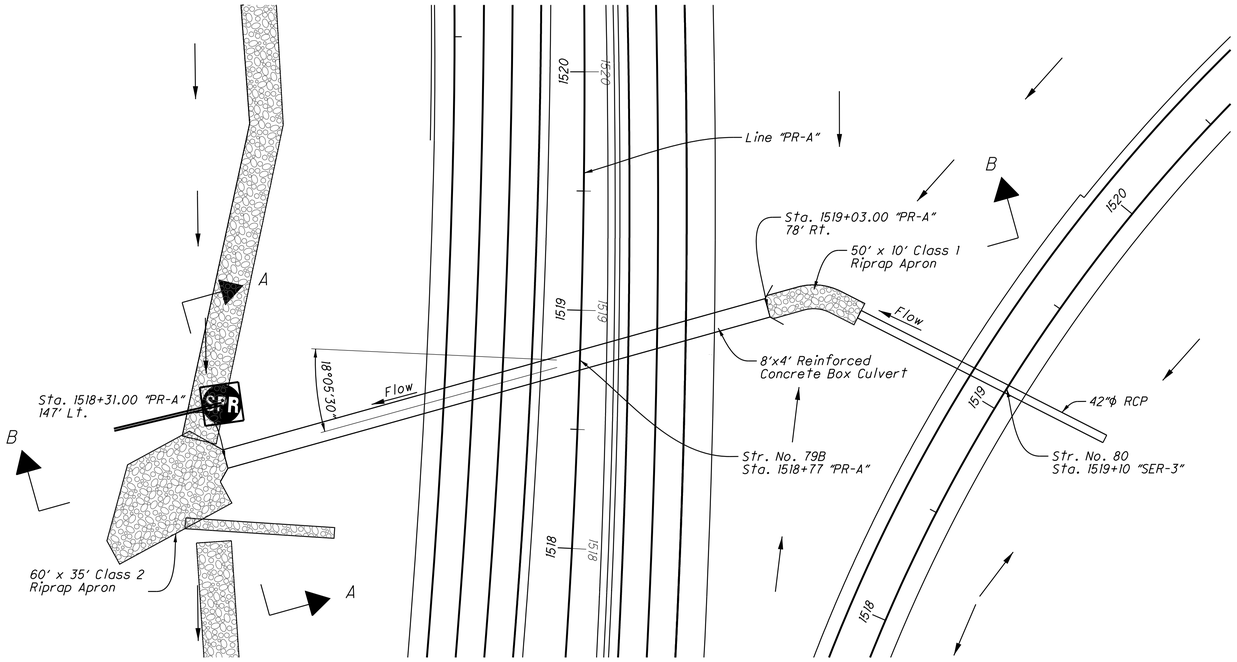
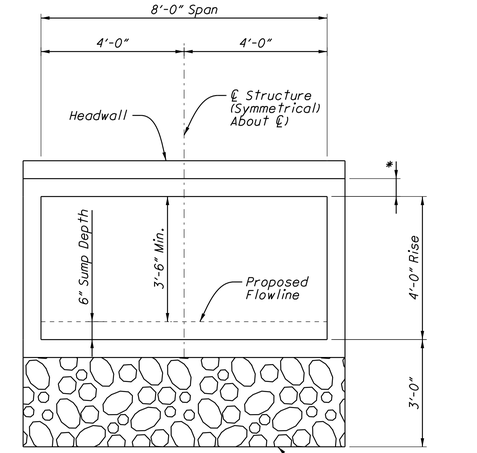
⚠1 09/25/12 - Culvert length shortened



PLAN
Not To Scale



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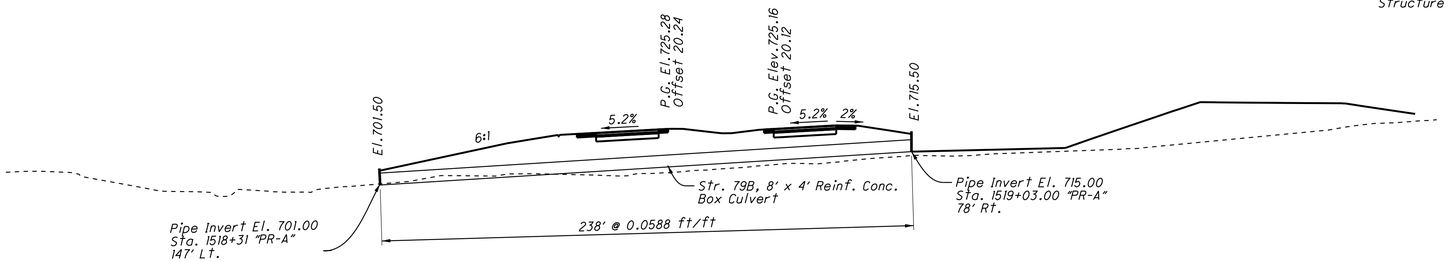

SECTION B-B
Not To Scale

HYDRAULIC DATA

Drainage Area	0.04 Sq. Miles
Design Discharge (Q100)	105.10 CFS
Hydraulic Area Required (Below Q100)	16.69 SFT
Hydraulic Area Provided (Below Q100)	16.69 SFT
Low Structure Elevation	719.00 Upstream 705.00 Downstream
Q100 Highwater Elevation	717.88 Ft.
Serviceability Freeboard	8.12 Ft.
Outlet Velocity @ Q100	11.17 FPS
Backwater	0.35 Ft.
Skew	18°05'30"

NOTES:

* - Indicates Dimensions to be Determined By the Precast Unit Manufacturer.

- See Roadway Cross Sections For Slopes

Factored Bearing Resistance = 3,000 psf

An Alternate Structure Type With a 8'-0" Perpendicular Span and a 4'-0" Rise or Similar That Matches The Required Waterway Opening May Be Substituted For The Structure Shown.

DESIGN DATA

Designed For HL93 Loading in Accordance With AASHTO LRFD Bridge Design Specifications, Fifth Edition, and All Subsequent Interims. Dead Loads Increased 35 psf For Future Wearing Surface.

DESIGN STRENGTHS

The Minimum Design Concrete Compressive Strength For Structure Sections Shall Be 5,000 psi. For Headwalls, Wingwalls, and Spandrel Walls It Shall Be 4,000 psi.

WINGWALL SOIL PARAMETERS

Angle of Friction Between Wingwall Footing and Foundation Soil (δ)	= 17°
Angle of Internal Friction of The Foundation Soil (ϕ)	= 32°
Ultimate Cohesion of Foundation (C)	= 1,250 psf
Ultimate Adhesion Between Foundation Soil and Concrete (C)	= 600 psf

GENERAL NOTES

1.) Provide Headwalls for structure
2.) Structure shall be sumped 6".
3.) Backfill with No. 8 aggregate.
4.) Springbox shall be req'd.

SWALE TO UNNAMED TRIBUTARY OF CLEAR CREEK UNDER I-69
PRECAST REINFORCED CONCRETE STRUCTURE
1 SPAN @ 8'-0"
18°05'30" SKEW LT.
4'-0" RISE

SH Sink Hole
SPR Spring

JANETTE WAGNER FULKERSON
REGISTERED
No. PE60870080
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE: 9/4/2012

DESIGNED: JWF | DRAWN: SMS
CHECKED: MDO | CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
Str. No. 938

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
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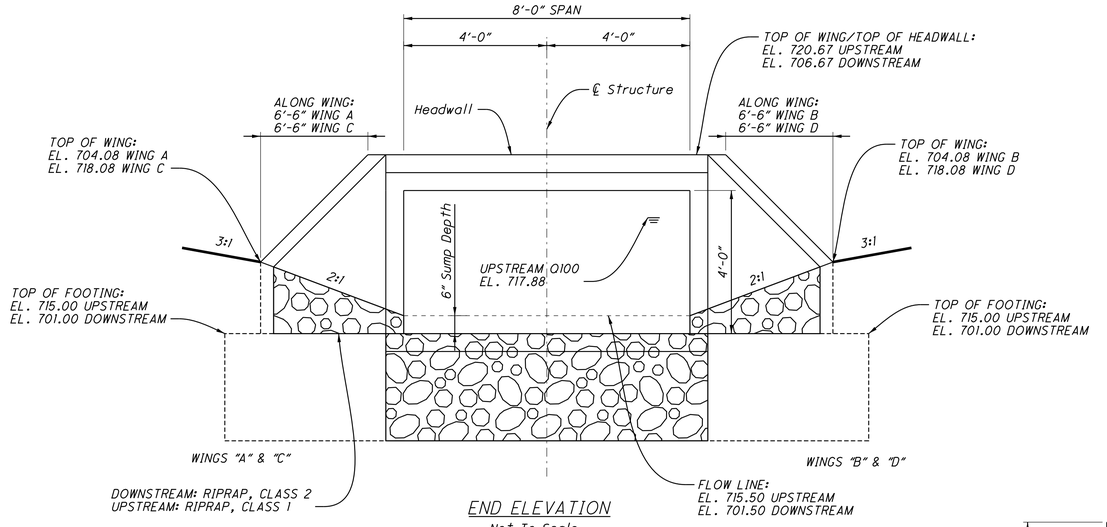
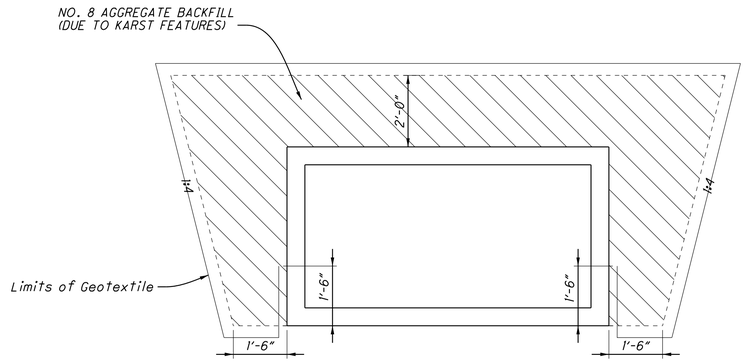
1 09/25/12 - Miscellaneous revisions



END ELEVATION

Not To Scale



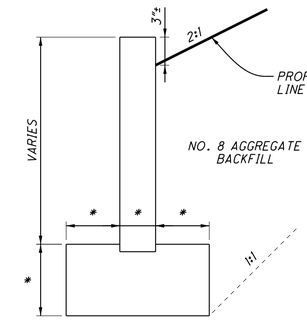
LIMITS OF BACKFILL

NOT TO SCALE
*TO BE DETERMINED BY MANUFACTURER

Wingwall	H1	H2	L1	A (sft)	B (sft)	Total Area (sft)
Wing A	5.67'	3.08'	6.50'	8.42	20.02	28.44
Wing B	5.67'	3.08'	6.50'	8.42	20.02	28.44
Wing C	5.67'	3.08'	6.50'	8.42	20.02	28.44
Wing D	5.67'	3.08'	6.50'	8.42	20.02	28.44
						113.76

WALL AREAS

Not To Scale



SECTION C-C

NOT TO SCALE
* TO BE DETERMINED BY MANUFACTURER

BOX STRUCTURE AND WINGWALL LAYOUT

NOT TO SCALE
(PRECAST STRUCTURE UNITS NOT SHOWN FOR CLARITY)

* Footings To Be Designed By Manufacturer Based Upon Factored Bearing Resistance

SWALE TO UNNAMED TRIBUTARY OF CLEAR CREEK UNDER I-69
PRECAST REINFORCED
CONCRETE STRUCTURE
1 SPAN @ 8'-0"
18°05'30" SKEW L.T.
4'-0" RISE

JANETTE WAGNER FULKERSON
REGISTERED
No. PE60870080
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/4/2012

DESIGNED: JWF | DRAWN: SMS
CHECKED: MDO | CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

CULVERT DETAIL
Str. No. 938

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GP-04	138 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:42:58 AM
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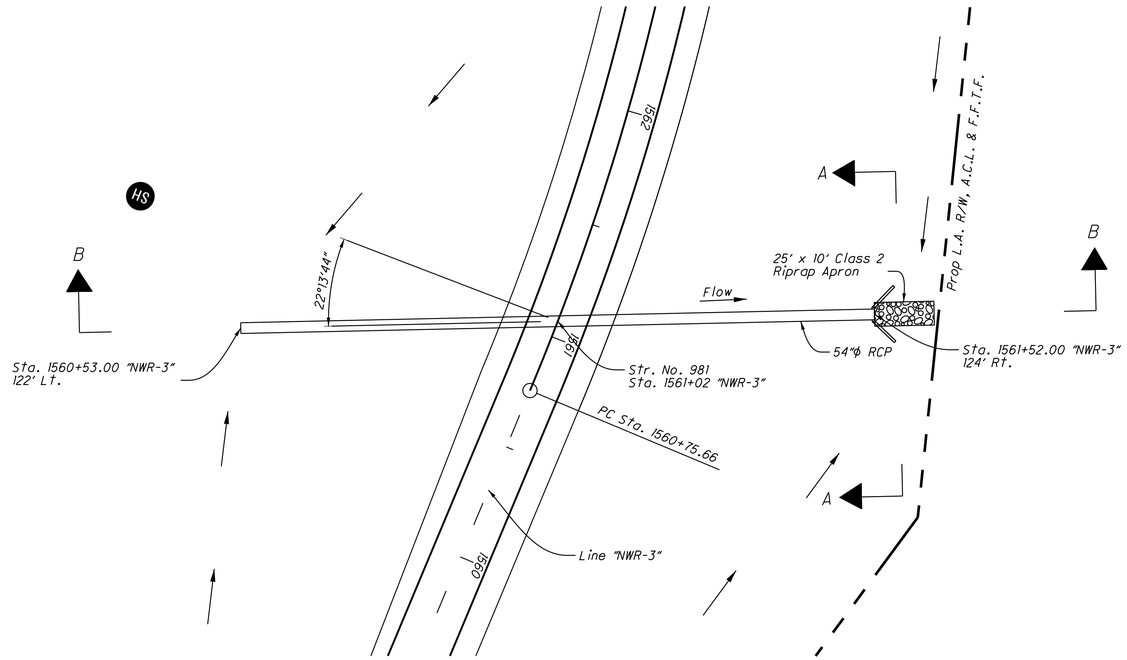
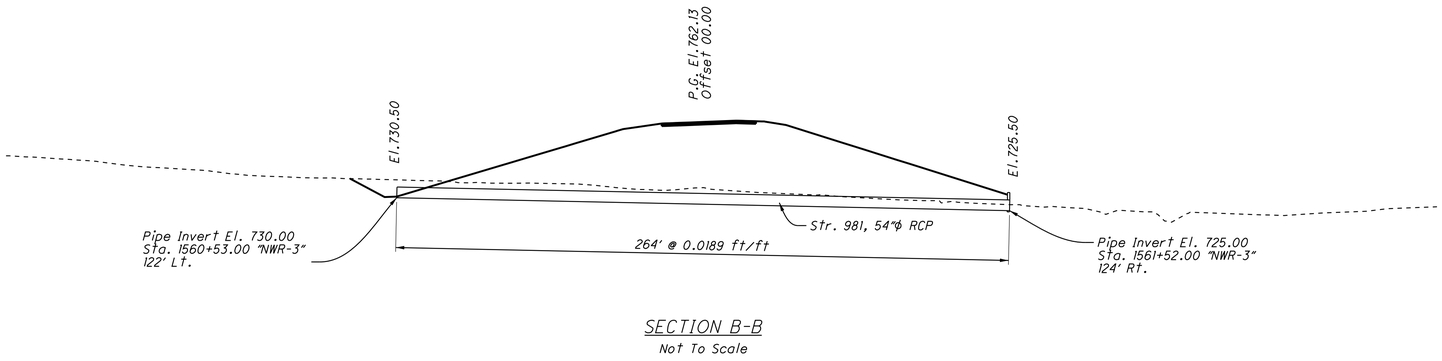
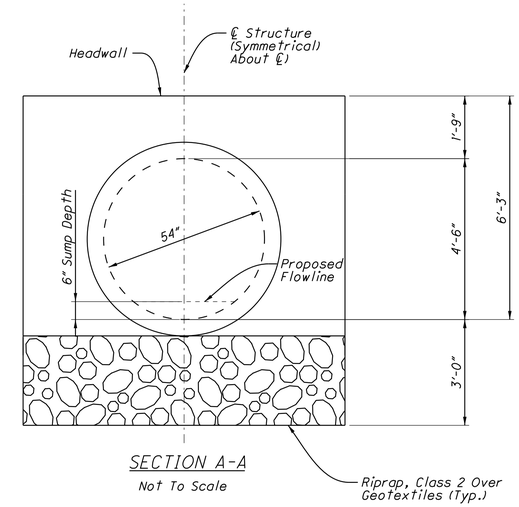
1 09/25/12 - Miscellaneous revisions



PLAN
Not To Scale



SECTION B-B
Not To Scale



SECTION A-A
Not To Scale

HYDRAULIC DATA

Drainage Area	0.02 Sq. Miles
Design Discharge (Q100)	51.74 CFS
Hydraulic Area Required (Below Q100)	12.74 SFT (Inlet Control)
Hydraulic Area Provided (Below Q100)	12.74 SFT (Inlet Control)
Low Structure Elevation	734.50 Upstream 729.50 Downstream
Q100 Highwater Elevation	733.36 Ft.
Serviceability Freeboard	28.77 Ft.
Outlet Velocity @ Q100	8.80 FPS
Backwater	0.92 Ft.
Skew	22°13'44"

NOTES:

\# - Indicates Dimensions to be Determined By the Precast Unit Manufacturer.

\# - See Roadway Cross Sections For Slopes

Factored Bearing Resistance = 3,000 psf

DESIGN DATA

Designed For HL93 Loading in Accordance With AASHTO LRFD Bridge Design Specifications, Fifth Edition, and All Subsequent Interims. Dead Loads Increased 35 psf For Future Wearing Surface.

DESIGN STRENGTHS

The Minimum Design Concrete Compressive Strength For Structure Sections Shall Be 5,000 psi. For Headwalls, Wingwalls, and Spandrel Walls It Shall Be 4,000 psi.

WINGWALL SOIL PARAMETERS

Angle of Friction Between Wingwall Footing and Foundation Soil (δ)	= 17°
Angle of Internal Friction of The Foundation Soil (Φ)	= 32°
Ultimate Cohesion of Foundation (C)	= 1,250 psf
Ultimate Adhesion Between Foundation Soil and Concrete (C)	= 600 psf

GENERAL NOTES

1.) Provide Headwall for structure at downstream end.
2.) Structure shall be sumped 6".
3.) Backfill with No. 8 aggregate.

UNNAMED TRIBUTARY OF CLEAR CREEK UNDER RAMP NWR-3
REINFORCED CONCRETE PIPE, 54 INCH
22°13'44" SKEW LT.

SH Sink Hole
SPR Spring

JANETTE WAGNER FULKERSON
REGISTERED
No. PE60870080
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/26/2012

DESIGNED: JWF | DRAWN: SMS
CHECKED: MDO | CHECKED: JWF

INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
Str. No. 981

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GP-05	139-1 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
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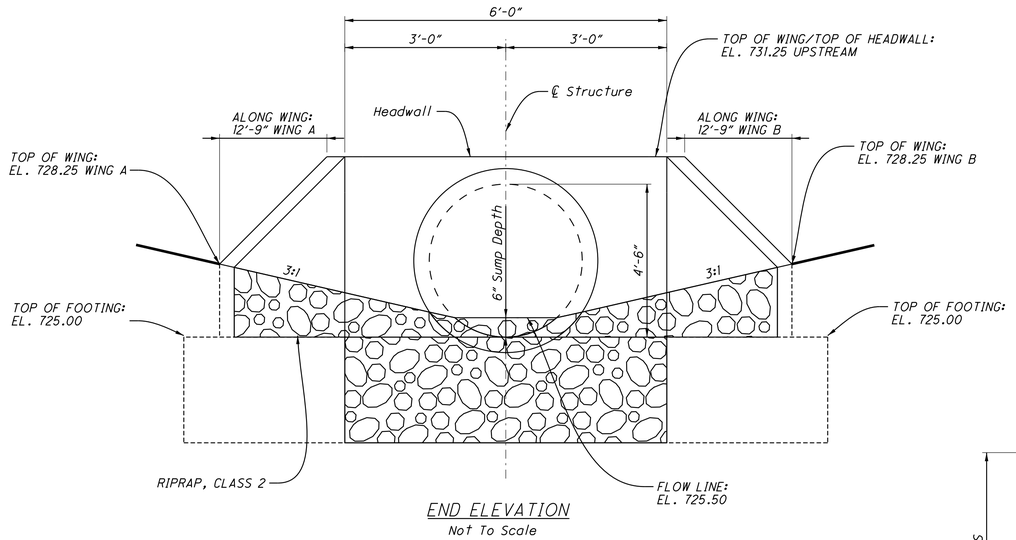
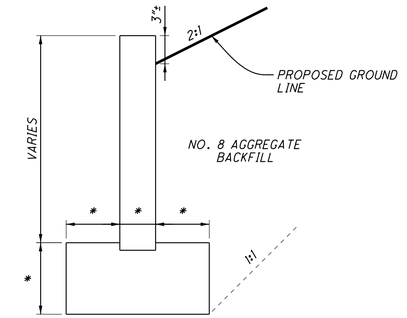
1 09/25/12 - Additional sheet



END ELEVATION

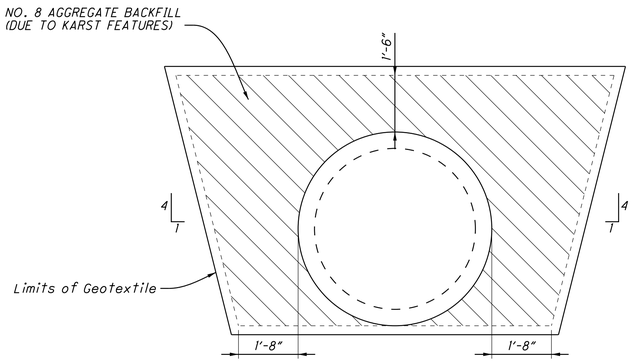
Not To Scale



SECTION C-C

NOT TO SCALE

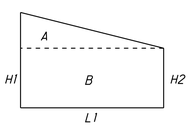
* TO BE DETERMINED BY MANUFACTURER



LIMITS OF BACKFILL

NOT TO SCALE

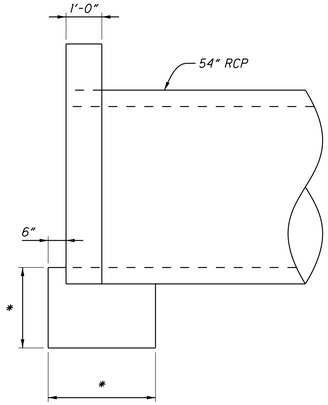
*TO BE DETERMINED BY MANUFACTURER



Wingwall	H1	H2	L1	A (sft)	B (sft)	Total Area (sft)
Wing A	6.25'	3.25'	12.75'	19.13	41.44	60.56
Wing B	6.25'	3.25'	12.75'	19.13	41.44	60.56
						121.12

WALL AREAS

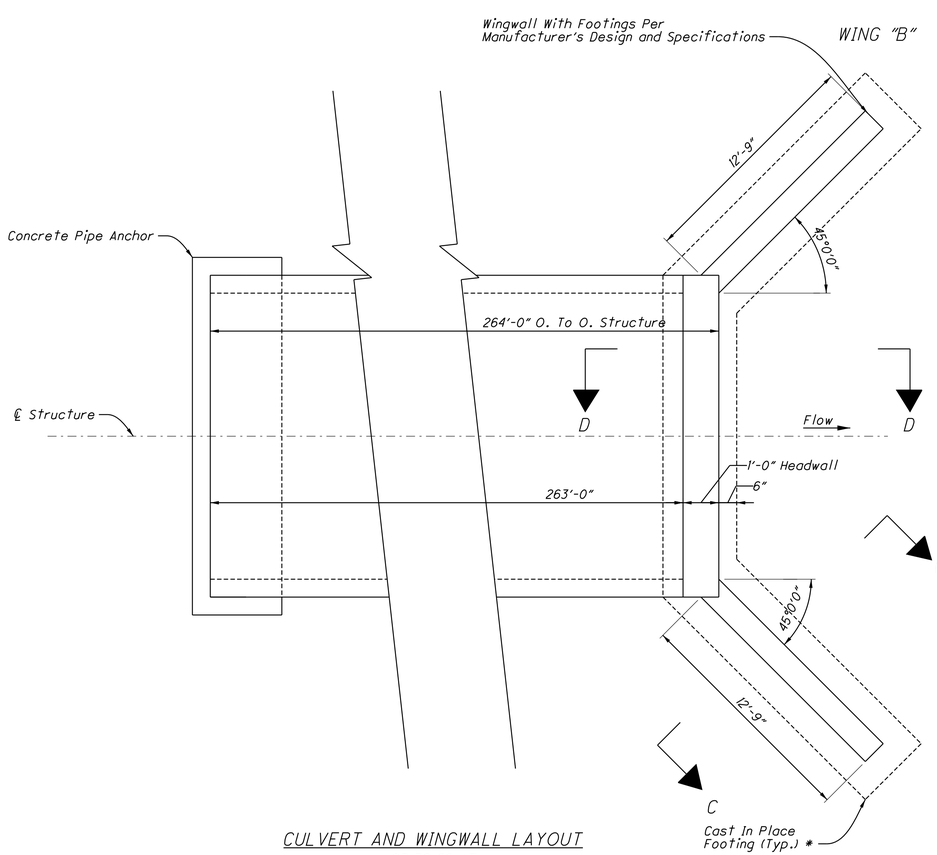
Not To Scale



SECTION D-D

NOT TO SCALE

* TO BE DETERMINED BY MANUFACTURER



CULVERT AND WINGWALL LAYOUT

NOT TO SCALE

(PRECAST STRUCTURE UNITS NOT SHOWN FOR CLARITY)

* Footings To Be Designed By Manufacturer Based Upon Factored Bearing Resistance

UNNAMED TRIBUTARY OF CLEAR CREEK UNDER RAMP NWR-3
REINFORCED CONCRETE PIPE, 54 INCH
22°13'44" SKEW LT.

DATE: 10/1/2012
TIME: 10:43:07 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\2562750RD_GP03_981.dgn

RECOMMENDED FOR APPROVAL	Annette Wagner Fulkerson 9/26/2012 DESIGN ENGINEER DATE	INDIANA DEPARTMENT OF TRANSPORTATION	
DESIGNED: JWF	DRAWN: SMS	CULVERT DETAIL Str. No. 981	
CHECKED: MDO	CHECKED: JWF		

ANNETTE WAGNER FULKERSON REGISTERED No. PE60870080 STATE OF INDIANA PROFESSIONAL ENGINEER

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GP-06	139-2 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

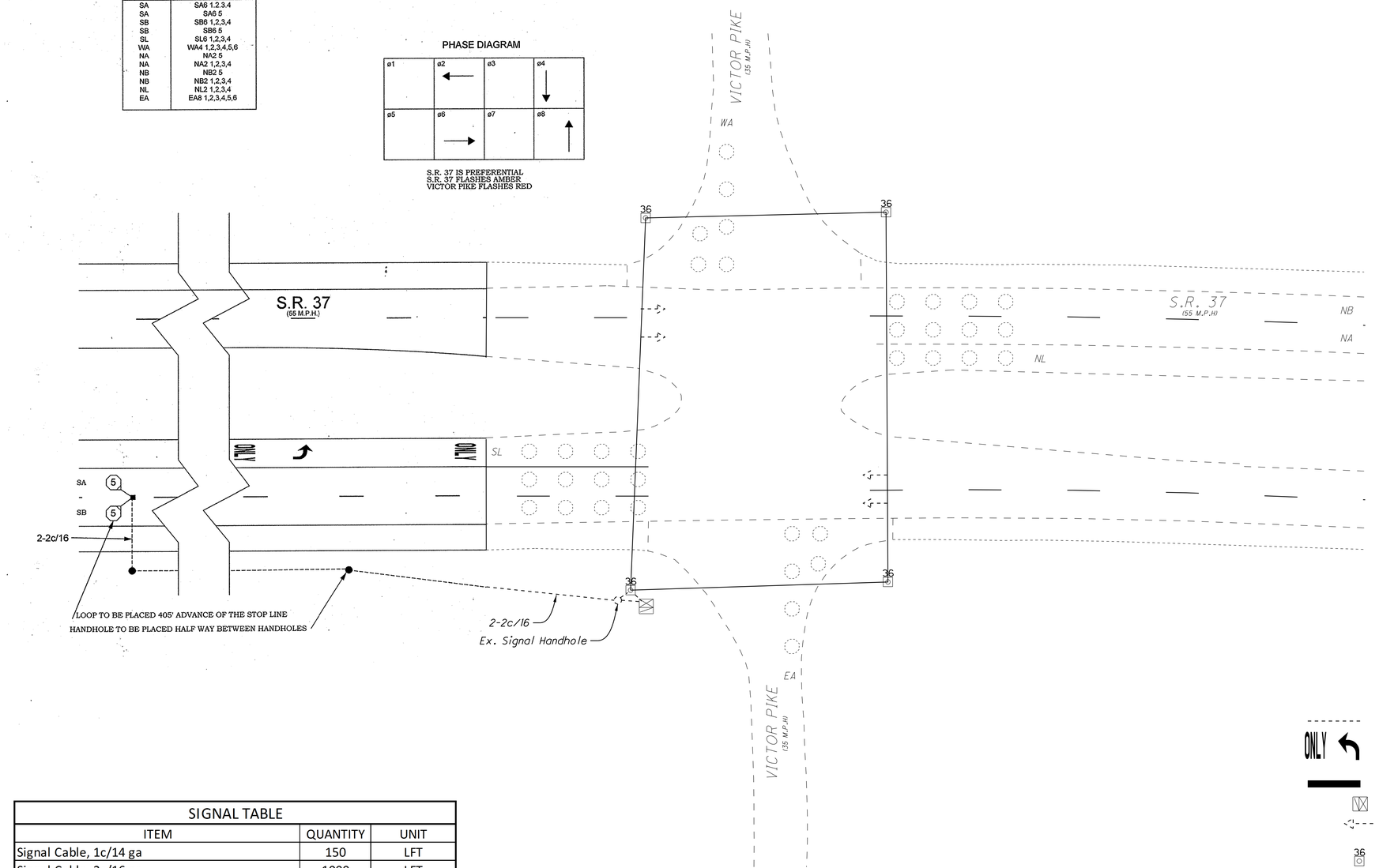
1 09/25/12 - Additional sheet

LOOP TAGGING TABLE	
LANE	TAG - NUMBER
SA	SA6 1,2,3,4
SA	SA6 5
SB	SB6 1,2,3,4
SB	SB6 5
SL	SL6 1,2,3,4
WA	WA4 1,2,3,4,5,6
NA	NA2 5
NA	NA2 1,2,3,4
NB	NB2 5
NB	NB2 1,2,3,4
NL	NL2 1,2,3,4
EA	EA8 1,2,3,4,5,6

PHASE DIAGRAM

ø1	ø2 ←	ø3	ø4 ↓
ø5	ø6 →	ø7	ø8 ↑

S.R. 37 IS PREFERENTIAL
S.R. 37 FLASHES AMBER
VICTOR PIKE FLASHES RED



SIGNAL TABLE		
ITEM	QUANTITY	UNIT
Signal Cable, 1c/14 ga	150	LFT
Signal Cable, 2c/16 ga	1000	LFT
Signal Detector Housing	1	EACH
Sawcut for Roadway Loop and Sealant	42	LFT
Conduit, Steel, Galvanized, 2 in	450	LFT
Handhole	2	EACH

LEGEND

- 2" GALVANIZED STEEL CONDUIT
- ONLY ↰ PAVEMENT MESSAGE MARKINGS
- 24" STOP LINE
- EX. CONTROLLER AND "P-1" CABINET ON "P-1" FOUNDATION
- EX. TRAFFIC SIGNAL HEAD, 3 FACE, 12": RED, AMBER, GREEN
- 36 EX. 36' STEEL STRAIN POLE & FOUNDATION
- SIGNAL DETECTOR HOUSING
- SIGNAL HANDHOLE
- EX. SIGNAL HANDHOLE
- EX. OCTAGONAL LOOP, 4 TURN SERIES
- OCTAGONAL LOOP, 4 TURN SERIES

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

SIGNAL MODIFICATION DETAIL S.R. 37 AND VICTOR PIKE

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	SG-01	139-3 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:43:08 AM
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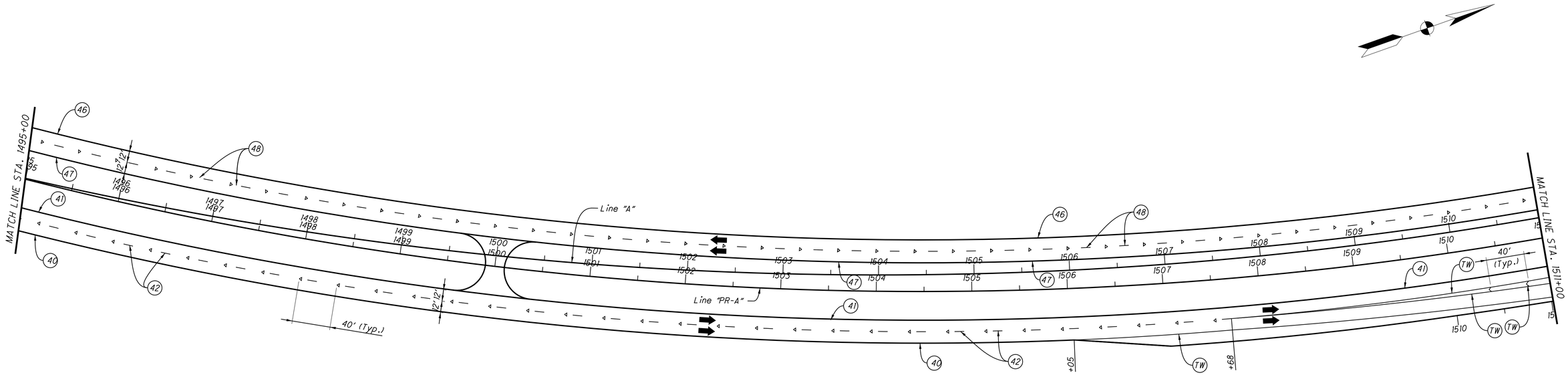
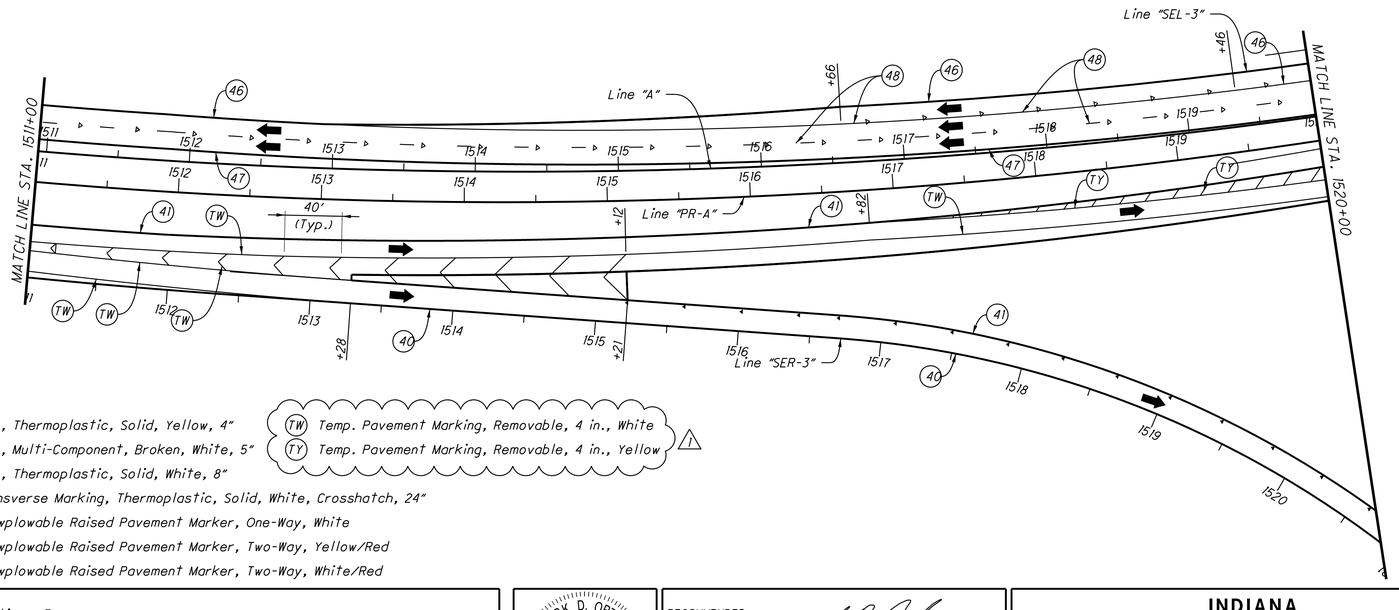
1 09/25/12 - Rock Filter Berm detail revised





LEGEND

- (40) Line, Multi-Component, Solid, White, 4"
- (41) Line, Multi-Component, Solid, Yellow, 4"
- (42) Line, Multi-Component, Broken, White, 5"
- (46) Line, Thermoplastic, Solid, White, 4"
- (44) Line, Multi-Component, Solid, White, 8"
- (45) Transverse Marking, Multi-Component, Solid, White, Crosshatch, 24"
- (47) Line, Thermoplastic, Solid, Yellow, 4"
- (48) Line, Multi-Component, Broken, White, 5"
- (50) Line, Thermoplastic, Solid, White, 8"
- (51) Transverse Marking, Thermoplastic, Solid, White, Crosshatch, 24"
- Snowplowable Raised Pavement Marker, One-Way, White
- Snowplowable Raised Pavement Marker, Two-Way, Yellow/Red
- Snowplowable Raised Pavement Marker, Two-Way, White/Red
- (TW) Temp. Pavement Marking, Removable, 4 in., White
- (TY) Temp. Pavement Marking, Removable, 4 in., Yellow

/1

NOTE:
For Line "A" & "PR-A", Marking Material Types Depend on the Selected Paving Alternative. For PCCP Pavement (Depicted on NB Lanes), all Markings Shall be Multi-Component. For HMA Pavement (Depicted on SB Lanes), all Marking Shall be Thermoplastic.

Snowplowable Raised Pavement Markings Shall be Placed on I-69 Centerlines, Gore Lines and Ramp Curves as detailed in INDOT Standard Drawings and Indiana MUTCD.

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: BDM
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING DETAILS
STA. 1495+00 TO STA. 1520+00 "PR-A"

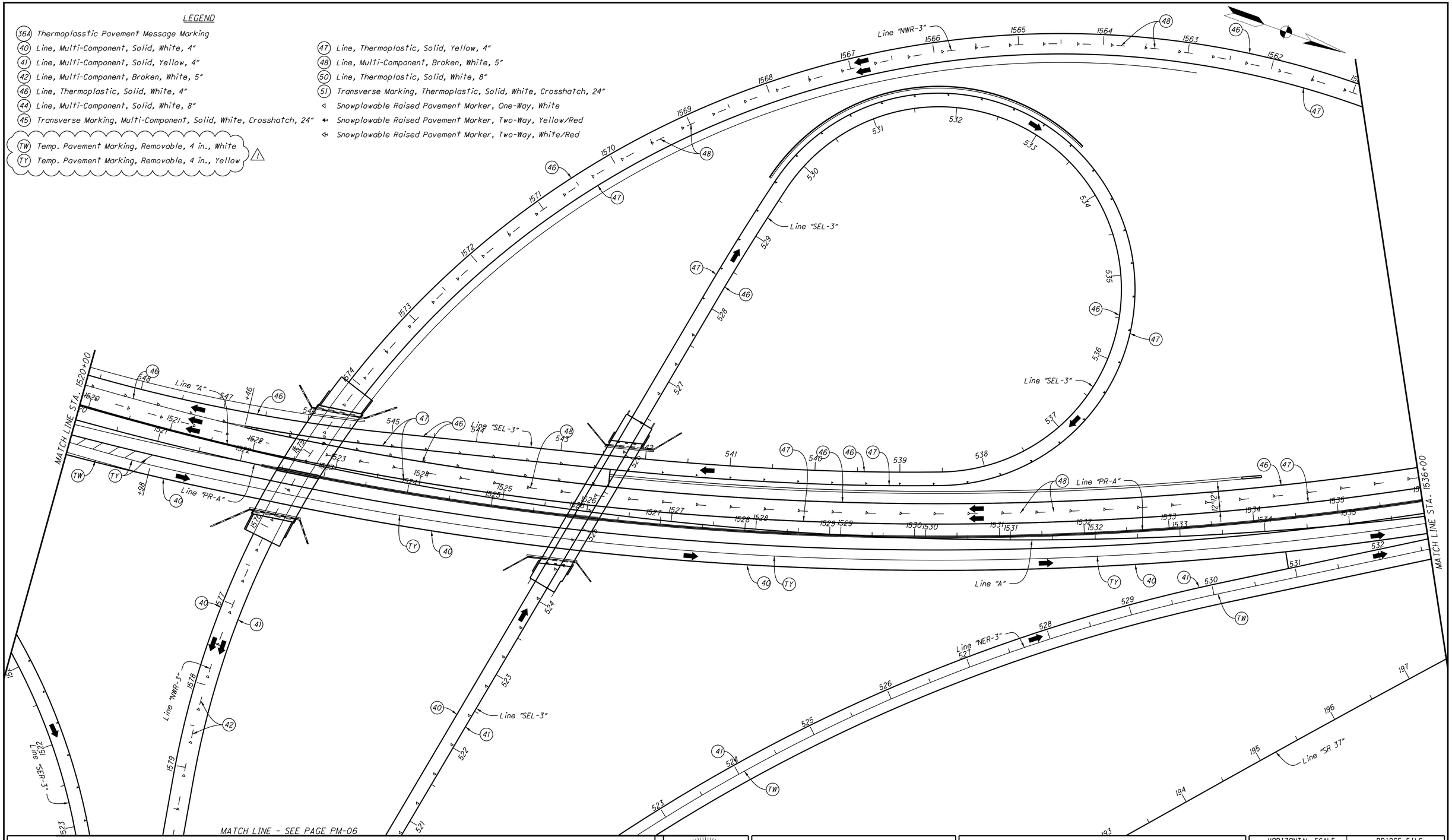
HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PM-02	141 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

/1 09/25/12 - Legend revisions

LEGEND

- (36A) Thermoplasstic Pavement Message Marking
- (40) Line, Multi-Component, Solid, White, 4"
- (41) Line, Multi-Component, Solid, Yellow, 4"
- (42) Line, Multi-Component, Broken, White, 5"
- (46) Line, Thermoplastic, Solid, White, 4"
- (44) Line, Multi-Component, Solid, White, 8"
- (45) Transverse Marking, Multi-Component, Solid, White, Crosshatch, 24"
- (TW) Temp. Pavement Marking, Removable, 4 in., White
- (TY) Temp. Pavement Marking, Removable, 4 in., Yellow
- (47) Line, Thermoplastic, Solid, Yellow, 4"
- (48) Line, Multi-Component, Broken, White, 5"
- (50) Line, Thermoplastic, Solid, White, 8"
- (51) Transverse Marking, Thermoplastic, Solid, White, Crosshatch, 24"
- Snowplowable Raised Pavement Marker, One-Way, White
- Snowplowable Raised Pavement Marker, Two-Way, Yellow/Red
- Snowplowable Raised Pavement Marker, Two-Way, White/Red



NOTE:
For Line "A" & "PR-A", Marking Material Types Depend on the Selected Paving Alternative. For PCCP Pavement (Depicted on NB Lanes), all Markings Shall be Multi-Component. For HMA Pavement (Depicted on SB Lanes), all Marking Shall be Thermoplastic.

Snowplowable Raised Pavement Markings Shall be Placed on I-69 Centerlines, Gore Lines and Ramp Curves as detailed in INDOT Standard Drawings and Indiana MUTCD.

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: BDM
CHECKED: HCF | CHECKED: MDO

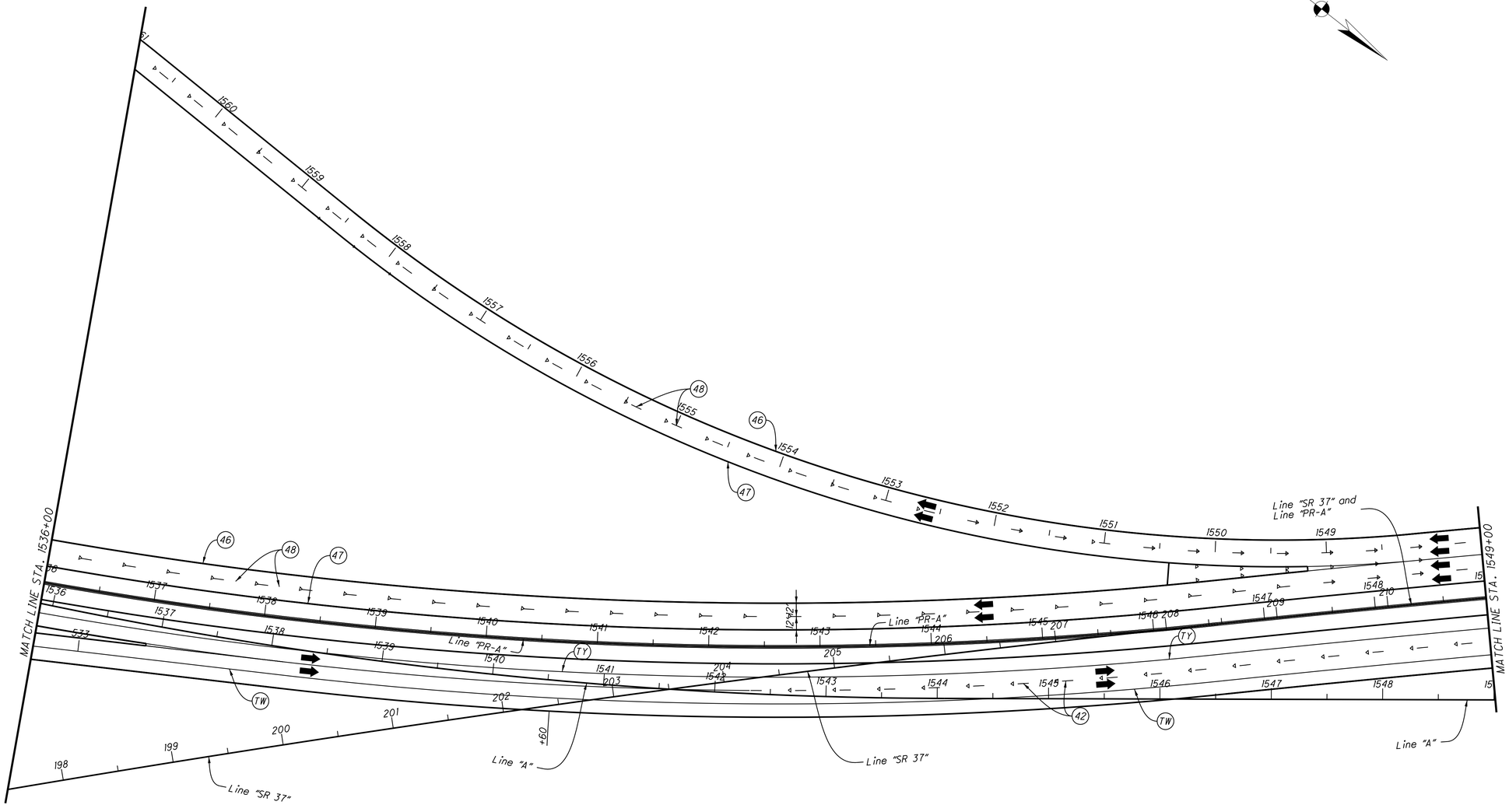
INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING DETAILS
STA. 1520+00 TO STA. 1536+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PM-03	142 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Legend revisions



LEGEND

- (36A) Thermoplasstic Pavement Message Marking
- (40) Line, Multi-Component, Solid, White, 4"
- (41) Line, Multi-Component, Solid, Yellow, 4"
- (42) Line, Multi-Component, Broken, White, 5"
- (46) Line, Thermoplastic, Solid, White, 4"
- (44) Line, Multi-Component, Solid, White, 8"
- (45) Transverse Marking, Multi-Component, Solid, White, Crosshatch, 24"
- (47) Line, Thermoplastic, Solid, Yellow, 4"
- (48) Line, Multi-Component, Broken, White, 5"
- (50) Line, Thermoplastic, Solid, White, 8"
- (51) Transverse Marking, Thermoplastic, Solid, White, Crosshatch, 24"
- Snowplowable Raised Pavement Marker, One-Way, White
- Snowplowable Raised Pavement Marker, Two-Way, Yellow/Red
- Snowplowable Raised Pavement Marker, Two-Way, White/Red
- (TW) Temp. Pavement Marking, Removable, 4 in., White
- (TY) Temp. Pavement Marking, Removable, 4 in., Yellow
- 1 ⚠

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING DETAILS

STA. 1536+00 TO STA. 1549+00 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PM-04	143 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:43:44 AM
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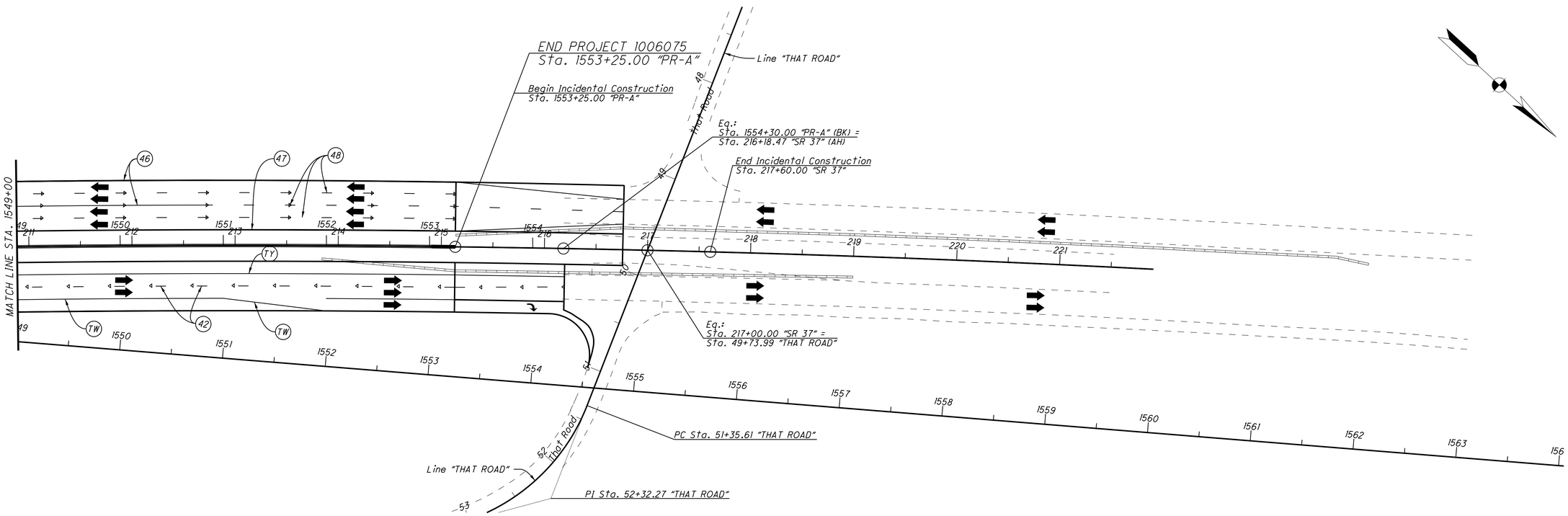
⚠1 09/25/12 - Legend revisions



LEGEND

- (36A) Thermoplasstic Pavement Message Marking
- (40) Line, Multi-Component, Solid, White, 4"
- (41) Line, Multi-Component, Solid, Yellow, 4"
- (42) Line, Multi-Component, Broken, White, 5"
- (46) Line, Thermoplastic, Solid, White, 4"
- (44) Line, Multi-Component, Solid, White, 8"
- (45) Transverse Marking, Multi-Component, Solid, White, Crosshatch, 24"
- (47) Line, Thermoplastic, Solid, Yellow, 4"
- (48) Line, Multi-Component, Broken, White, 5"
- (50) Line, Thermoplastic, Solid, White, 8"
- (51) Transverse Marking, Thermoplastic, Solid, White, Crosshatch, 24"
- Snowplowable Raised Pavement Marker, One-Way, White
- Snowplowable Raised Pavement Marker, Two-Way, Yellow/Red
- Snowplowable Raised Pavement Marker, Two-Way, White/Red
- (TW) Temp. Pavement Marking, Removable, 4 in., White
- (TY) Temp. Pavement Marking, Removable, 4 in., Yellow

1

MARK D. ORLICH
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO | DRAWN: KCH
CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING DETAILS
STA. 1549+00 "PR-A" TO STA. 219+00 "SR 37"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PM-05	144 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:43:45 AM
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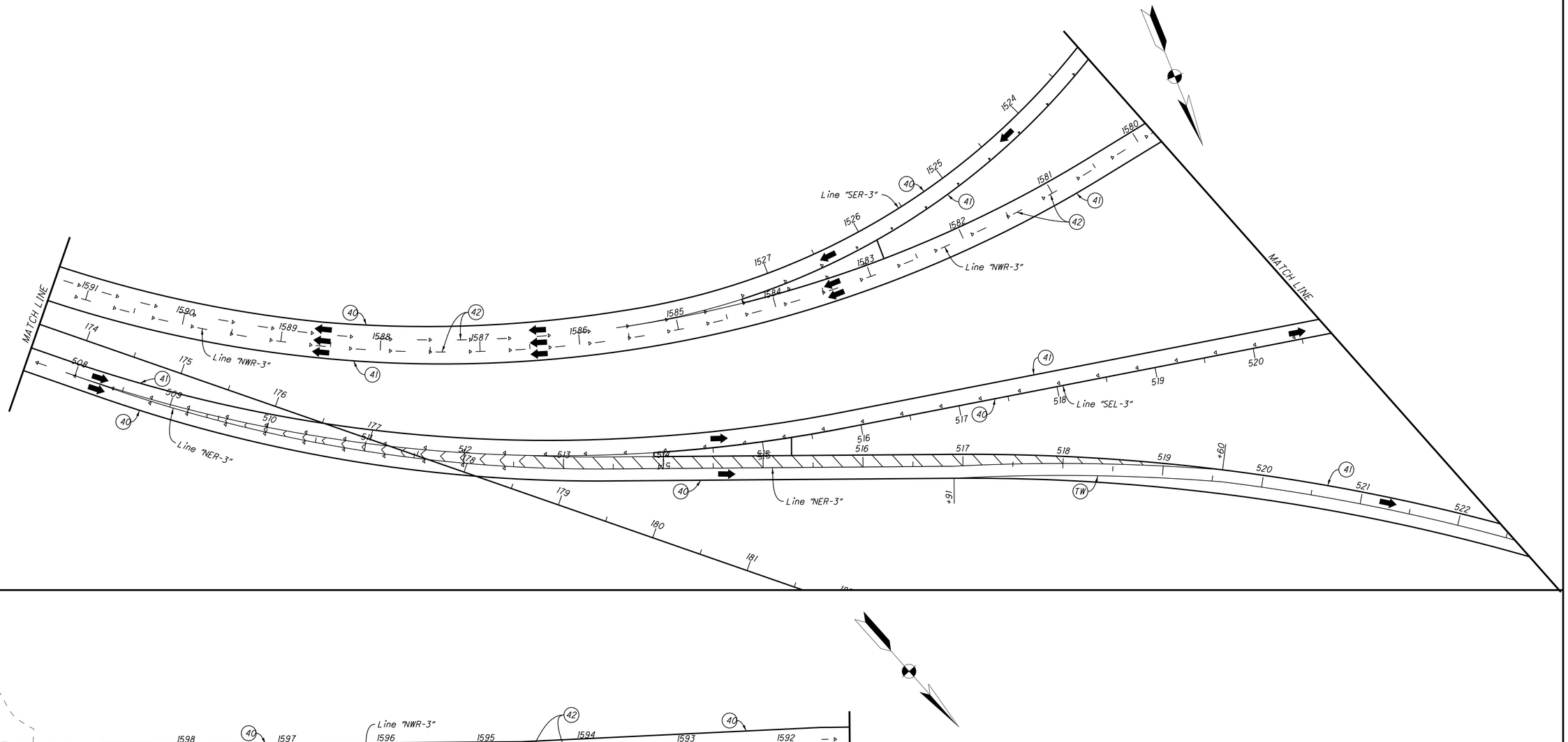
1 09/25/12 - Legend revisions



LEGEND

- (36A) Thermoplasstic Pavement Message Marking
- (40) Line, Multi-Component, Solid, White, 4"
- (41) Line, Multi-Component, Solid, Yellow, 4"
- (42) Line, Multi-Component, Broken, White, 5"
- (46) Line, Thermoplastic, Solid, White, 4"
- (44) Line, Multi-Component, Solid, White, 8"
- (45) Transverse Marking, Multi-Component, Solid, White, Crosshatch, 24"
- (TW) Temp. Pavement Marking, Removable, 4 in., White
- (TY) Temp. Pavement Marking, Removable, 4 in., Yellow ⚠1
- (47) Line, Thermoplastic, Solid, Yellow, 4"
- (48) Line, Multi-Component, Broken, White, 5"
- (50) Line, Thermoplastic, Solid, White, 8"
- (51) Transverse Marking, Thermoplastic, Solid, White, Crosshatch, 24"
- Snowplowable Raised Pavement Marker, One-Way, White
- Snowplowable Raised Pavement Marker, Two-Way, Yellow/Red
- Snowplowable Raised Pavement Marker, Two-Way, White/Red

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: KCH

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING DETAILS

RAMP "NER-3", "NWR-3", "SEL-3", & "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PM-06	145 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:43:46 AM
LOCATION: RX105141 - I-69 Section 4\Microstation\Sheet Files\256275002_PM06_AE.dgn

⚠1 09/25/12 - Legend revisions

1520 1525 1530

MATCH LINE STA. 1515+50

MATCH LINE STA. 1530+50

L.A. R/W, A.C.L., & F.F.T.F. w/ GP-1 Posts

L.A. R/W, A.C.L., & F.F.T.F. w/ GP-1 Posts

Const. Limits

Line "NWR-3"

Line "SEL-3"

Line "A"

Line "PR-A"

Line "SER-3"

Line "NER-3"

Ex. R/W

Ex. R/W

+88, SB No. 4-1457
Springbox, 35' Lt.
56' of 12" Pipe w/
1 P.E.S. Req'd

+55, SB No. 4-1530
Springbox, 150' Lt.
48' of 12" Pipe w/
1 P.E.S. Req'd

+50, SB No. 4-1458
Springbox, 130' Lt.
24' of 12" Pipe w/
1 P.E.S. Req'd

+55, SB No. 4-1769
Springbox, 50' Lt.
38' of 12" Pipe w/
1 P.E.S. Req'd

+40, SH No. 4-1461
Sinkhole, 5' Rt.
Concrete Cap

+10, SH No. 4-1426
Sinkhole, 230' Rt.
Aggregate Cap

+50, SH No. 4-40001
Sinkhole, 325' Rt.
Do Not Disturb,
Protect during Const.

+60, SH No. 4-40011
Sinkhole, 400' Rt.
Do Not Disturb,
Protect during Const.

+30, SH No. 4-41448
Sinkhole, 395' Rt.
Do Not Disturb,
Protect during Const.

+05, SH No. 4-41449
Sinkhole, 435' Rt.
Do Not Disturb,
Protect during Const.

+85, SH No. 4-0004
Sinkhole, 280' Rt.
Aggregate Cap,
Geomembrane Ditch

+40, SH No. 4-1465
Sinkhole, 150' Rt.
Aggregate Cap
Geomembrane Ditch

+00, SH No. 4-1596
Sinkhole, 280' Rt.
Aggregate Cap
Geomembrane Ditch

+50, SH No. 4-1599
Sinkhole, 270' Rt.
Aggregate Cap
Geomembrane Ditch

+15, SH No. 4-1454
Sinkhole, 375' Rt.
Aggregate Cap
Geomembrane Ditch

+60, SH No. 4-1614
Sinkhole, 45' Rt.
Concrete Cap

+85, SH No. 4-1459
Sinkhole, 30' Rt.
Concrete Cap

+90, SB No. 4-1456
Swallet, 40' Rt.
Concrete Cap

+00, SH No. 4-1796
Sinkhole, 135' Rt.
Aggregate Cap
Geomembrane Ditch

+00, SH No. 4-1792
Sinkhole, 255' Rt.
Aggregate Cap
Geomembrane Ditch

+75, SH No. 4-1799
Sinkhole, 275' Rt.
Aggregate Cap
Geomembrane Ditch

+65, SH No. 4-1795
Sinkhole, 300' Rt.
Aggregate Cap
Geomembrane Ditch

+75, SH No. 4-1794
Sinkhole, 290' Rt.
Aggregate Cap
Geomembrane Ditch

+90, SH No. 4-0007
Sinkhole, 20' Rt.
Concrete Cap

+65, SH No. 4-0009
Sinkhole, 65' Rt.
Aggregate Cap

+55, SH No. 4-1462
Sinkhole, 75' Rt.
Aggregate Cap

+15, SH No. 4-0008
Sinkhole, 80' Rt.
Concrete Cap

+50, SH No. 4-1463
Sinkhole, 160' Rt.
Aggregate Cap
Geomembrane Ditch

+75, SH No. 4-0006
Sinkhole, 90' Rt.
Aggregate Cap
Geomembrane Ditch

+30, SH No. 4-1604 & 4-1605
Sinkhole, 220' Rt.
Aggregate Cap

+60, SH No. 4-1460
Sinkhole, 95' Rt.
Aggregate Cap
Geomembrane Ditch

+25, SH No. 4-1603
Sinkhole, 225' Rt.
Aggregate Cap

+50, SH No. 4-1464
Sinkhole, 225' Rt.
Aggregate Cap

+60, SH No. 4-1714
Sinkhole, 285' Rt.
Aggregate Cap

+60, SH No. 4-1715
Sinkhole, 330' Rt.
Aggregate Cap
Geomembrane Ditch

+95, SH No. 4-1700
Sinkhole, 480' Rt.
Do Not Disturb

LEGEND

SH Sinkhole

SPR Spring

SW Swallet

For Sinkhole Treatment Details See Sheet 100
For Spring Box Details See Sheet 103

Note:
All R/W on this sheet to be as shown.
All R/W on this sheet described from Line "A" except as noted.
Line "PR-A" to be constructed.

MARK D. ORION
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

KARST DETAIL SHEET

STA. 1515+50 TO STA. 1530+50 "PR-A"

HORIZONTAL SCALE	BRIDGE FILE
1" = 50'	N/A
VERTICAL SCALE	DESIGNATION
NONE	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	KP-01	149 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/26/12 - Miscellaneous revisions

1

1

+40 "PR-A" SH No. 4-1495
+60 "PR-A" SH No. 4-1494
+70 "PR-A" SH No. 4-1496
+95 "PR-A" SH No. 4-1700
+60 "PR-A" SH No. 4-1714
+60 "PR-A" SH No. 4-1715
+00 "PR-A" SH No. 4-1598
+04 "PR-A" SH No. 4-1807
+10 "PR-A" SH No. 4-1716
+25 "PR-A" SH No. 4-1602
+55 "PR-A" SH No. 4-1600
+10 "PR-A" SH No. 4-1601
+70 "PR-A" SH No. 4-1453
+80 "PR-A" SH No. 4-0005
+25 "PR-A" SH No. 4-1452
+95 "PR-A" SH No. 4-1451
+05 "PR-A" SH No. 4-1449
+30 "PR-A" SH No. 4-1448
+60 "PR-A" SH No. 4-0011
+45 "PR-A" SH No. 4-1609
+50 "PR-A" SH No. 4-0001
+10 "PR-A" SH No. 4-1446
+60 "PR-A" SH No. 4-1808
+00 "PR-A" SH No. 4-1805
+25 "PR-A" SH No. 4-1466
+50 "PR-A" SH No. 4-1464
+70 "PR-A" SH No. 4-1604
+26 "PR-A" SH No. 4-1603
+55 "PR-A" SH No. 4-1462
+65 "PR-A" SH No. 4-0009
+50 "PR-A" SH No. 4-1463
+15 "PR-A" SH No. 4-0008
+85 "PR-A" SH No. 4-1505
+75 "PR-A" SH No. 4-1794
+65 "PR-A" SH No. 4-1795
+75 "PR-A" SH No. 4-1793
+75 "PR-A" SH No. 4-0006
+60 "PR-A" SH No. 4-1460
+00 "PR-A" SH No. 4-1792
+00 "PR-A" SH No. 4-1736
+90 "PR-A" SH No. 4-1458
+50 "PR-A" SH No. 4-1614
+99 "PR-A" SH No. 4-1597
+15 "PR-A" SH No. 4-1454
+50 "PR-A" SH No. 4-1599
+85 "PR-A" SH No. 4-0004
+00 "PR-A" SH No. 4-1596
+40 "PR-A" SH No. 4-1455
+05 "PR-A" SH No. 4-1431
+80 "PR-A" SH No. 4-1465
+20 "PR-A" SH No. 4-1438
+58 "PR-A" SPR No. 4-1469
+40 "PR-A" SH No. 4-1461
+90 "PR-A" SH No. 4-0007
+85 "PR-A" SH No. 4-1459
+50 "PR-A" SPR No. 4-1458
+85 "PR-A" SPR No. 4-1457
+60 "PR-A" SH No. 4-1468
+70 "PR-A" SH No. 4-1467
+55 "PR-A" SH No. 4-1469
+85 "PR-A" SH No. 4-1439
+90 "PR-A" SH No. 4-1445
+55 "PR-A" SPR No. 4-1530
+95 "PR-A" CV No. 4-1470
+60 "PR-A" SH No. 4-1471
+20 "PR-A" SH No. 4-1474
+15 "PR-A" SH No. 4-1440
+15 "PR-A" CV No. 4-1441
+80 "PR-A" SH No. 4-1612
+45 "PR-A" SH No. 4-1444
+40 "PR-A" SH No. 4-1442
+35 "PR-A" SH No. 4-1613
+50 "PR-A" SH No. 4-1443

Line "PR-A"
I-69 NB
I-69 SB
Ramp "NER 3"
Ramp "NWR 3"
Ramp "NEL 3"
Ramp "SER 3"

Cave
Sinkhole
Spring

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER — DATE 9/4/2012

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

PLAN SHEET KARST DETAIL

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	
VERTICAL SCALE	DESIGNATION
	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL		149-1 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:38:49 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\Cadd\Road\S9\7_Plan and Profiles Sheets\25627500_Karst_Detail.dgn

1 9/25/12 - Added Sheet

Segment 9 Karst Features

Feature No.	Station	Offset	Type	Location	-Cut / +Fill	Existing Ground Elevation	Design Treatment	Infiltration	Proposed Ground Elevation
4-0427	1462+30	Lt. 1,290'	sinkhole	Outside ROW			No treatment. Protect during construction		
4-0164	1464+10	Rt. 280'	spring	Outside CN limits	0	611	No treatment. Protect during construction		611
4-0429	1464+25	Lt. 235'	spring	Outside CN limits	0	654	No treatment. Protect during construction		654
4-0430	1464+30	Rt. 10'	swallet	Median	37	641	Concrete cap. * Must be completed prior to earth diststurbance from IR-33741		
4-0428	1464+45	Lt. 220'	spring	Outside CN limits	0	649	No treatment. Protect during construction		649
4-1520	1465+30	Rt. 45'	spring	Pavement	52	679	Springbox, pipe.		
4-0431	1466+45	Lt. 330'	spring	Outside ROW	0	615	No treatment. Protect during construction		615
4-0099	1476+30	Rt. 130'	sinkhole	Ditch	12	632	Aggregate cap. Geomembrane ditch.	low	
4-0100	1476+60	Rt. 25'	sinkhole	Pavement	12	640	Concrete cap.	low	
4-0097	1481+75	Lt. 170'	sinkhole	Outside CN limits	21	646	Aggregate cap. Geomembrane ditch.	medium	
4-0089	1483+15	Lt. 330'	cave	Outside ROW			No treatment. Protect during construction		
4-0098	1483+40	Lt. 45'	sinking stream	Pavement	22	639	Aggregate cap. Geomembrane ditch. Extended granular backfill & construction sequence.	high	
4-0088	1484+45	Lt. 390'	sinkhole	Outside ROW			No treatment. Protect during construction		
4-0090	1493+50	Lt. 255'	sinkhole	Outside ROW			No treatment. Protect during construction		
4-0084	1495+80	Lt. 80'	sinkhole	Pavement	13	683	Concrete cap.	low	
4-0086	1496+50	Rt. 380'	sinkhole	Along Bolin			No treatment. Protect during construction		
4-0092	1497+50	Lt. 150'	sinkhole	Ditch	10	681	Aggregate cap. Geomembrane ditch.	low	
4-0085	1498+50	Lt. 145'	spring	Ditch	15	691	Springbox, pipe.		
4-0094	1509+30	Rt. 145'	sinkhole	Ditch	0	704	Aggregate cap. Geomembrane ditch.	high	704
4-1608	1509+35	Rt. 155'	sinkhole	Ditch	0	704	Aggregate cap. Geomembrane ditch.	low	704
4-0003	1510+40	Lt. 105'	spring	Ditch	5	701	Springbox, pipe.		
4-1609	1515+45	Rt. 550'	sinkhole	Outside ROW	0	768	Do Not Disturb. Protect during construction.	medium	768
4-0001	1516+50	Rt. 325'	sinkhole	Outside ROW	0	743	Do Not Disturb. Protect during construction.	medium	743
4-0011	1516+60	Rt. 400'	sinkhole	Outside ROW	0	750	Do Not Disturb. Protect during construction.	low	750
4-1446	1517+10	Rt. 230'	sinkhole	In ROW		732	Aggregate cap.	low	
4-1448	1517+30	Rt. 395'	sinkhole	Outside ROW	0	747	Do Not Disturb. Protect during construction.	high	747
4-1449	1518+05	Rt. 435'	sinkhole	Outside ROW	N/A	N/A	Do Not Disturb. Protect during construction.	medium	N/A
4-1530	1518+55	Lt. 150'	spring	Outside CN limits	0	700	Springbox, pipe.		700
4-1452	1519+25	Rt. 500'	sinkhole	Outside ROW	0	748	Do Not Disturb. Protect during construction.	low	748
4-1600	1519+55	Rt. 840'	sinkhole	Outside ROW	0	764	Do Not Disturb. Protect during construction.	low	764
4-1453	1519+70	Rt. 630'	sinkhole	Outside ROW	0	748	Do Not Disturb. Protect during construction.	high	748
4-0005	1519+80	Rt. 450'	sinkhole	115' of SER Shldr	0	745	Aggregate cap.	medium	745
4-0004	1519+85	Rt. 280'	sinkhole	Ramp Shoulder	7	731	Aggregate cap. Geomembrane ditch	low	738
4-1451	1519+95	Rt. 440'	sinkhole	100' of SER Shldr	0	744	Aggregate cap.	medium	744
4-1601	1520+10	Rt. 620'	sinkhole	On\in ROW Limits	0	755	Aggregate cap.	medium	755
4-1602	1520+25	Rt. 810'	sinkhole	Outside ROW	0	766	Do not disturb. Protect during construction.	medium	766
4-1596	1521+00	Rt. 280'	sinkhole	Infield		738	Aggregate cap. Geomembrane ditch.	medium	
4-1807	1521+05	Rt. 995'	sinkhole	Ditch	-41	784	Aggregate cap. Geomembrane ditch.	low	743
4-1454	1521+15	Rt. 375'	sinkhole	Infield	-11	754	Aggregate Cap. Geomembrane ditch.	medium	743
4-1455	1521+40	Rt. 150'	sinkhole	Embankment	7	733	Aggregate cap. Geomembrane ditch .	high	740
4-1599	1521+50	Rt. 270'	sinkhole	Embankment	8	739	Aggregate cap. Geomembrane ditch.	medium	747
4-1597	1521+95	Rt. 425'	sinkhole	Ramp Shoulder	4	755	Concrete cap.	medium	759
4-1716	1522+10	Rt. 763'	sinkhole	Ramp Pavement	-11	765	Concrete cap.	high	754
4-1494	1522+60	Rt. 1440'	sinkhole	Outside ROW	0	762	Do not disturb. Protect during construction.	low	762
4-1457	1522+85	Lt. 35'	spring	Pavement	11	722	Springbox, pipe.		733
4-1445	1522+90	Lt. 490'	sinkhole	Outside ROW	0	748	Do not disturb. Protect during construction.	medium	748
4-1598	1523+00	Rt. 760'	sinkhole	Loop Embankment	-4	766	Aggregate cap. Geomembrane ditch.	medium	762
4-1613	1523+35	Lt. 775'	sinkhole	Outside ROW	0	730	Do not disturb. Protect during construction.	medium	730
4-1444	1523+45	Lt. 635'	sinkhole	Outside ROW	0	743	Do not disturb. Protect during construction.	medium	743
4-1443	1523+50	Lt. 825'	sinkhole	Outside ROW	0	728	Do not disturb. Protect during construction.	high	728
4-1614	1523+60	Rt. 45'	sinkhole	Shoulder	1	736	Concrete cap.	medium	737
4-1795	1523+65	Rt. 300'	sinkhole	Infield		759	Aggregate cap. Geomembrane ditch.	high	
4-1793	1523+75	Rt. 275'	sinkhole	Infield		757	Aggregate cap. Geomembrane ditch.	high	
4-1794	1523+75	Rt. 290'	sinkhole	Infield		758	Aggregate cap. Geomembrane ditch .	high	
4-1612	1523+80	Lt. 640'	sinkhole	Outside ROW	0	742	Do not disturb. Protect during construction.	low	742
4-1505	1523+85	Rt. 500'	sinkhole	Embankment		749	Aggregate cap. Geomembrane ditch.	high	

Segment 9 Karst Features

Feature No.	Station	Offset	Type	Location	-Cut / +Fill	Existing Ground Elevation	Design Treatment	Infiltration	Proposed Ground Elevation
4-1456	1523+90	Rt. 40'	swallet	Shoulder	2	735	Concrete cap.		737
4-1792	1524+00	Rt. 255'	sinkhole	Infield		757	Aggregate cap. Geomembrane ditch.	medium	
4-1796	1524+00	Rt. 135'	sinkhole	Infield		745	Aggregate cap. Geomembrane Ditch.	medium	
4-1495	1524+40	Rt. 1305'	sinkhole	Outside ROW	0	757	Do not disturb. Protect during construction.	low	757
4-1458	1524+50	Lt. 130'	spring	Embankment	? -6	724	Springbox and pipe.		718
4-1460	1524+60	Rt. 95'	sinkhole	Infield	-6	747	Aggregate cap. Geomembrane ditch	medium	741
4-1496	1524+70	Rt. 1255'	sinkhole	Outside ROW	0	764	Do not disturb. Protect during construction.	high	764
4-0006	1524+75	Rt. 90'	sinkhole	Infield	-5	745	Aggregate cap. Geomembrane ditch.	high	740
4-1459	1524+85	Rt. 30'	sinkhole	Pavement	-6	745	Concrete cap.	low	739
4-0007	1524+90	Rt. 20	sinkhole	Pavement	-4	743	Concrete cap.	medium	739
4-1440	1525+15	Lt. 695'	sinkhole	Outside ROW	0	741	Do not disturb. Protect during construction.	medium	741
4-1441	1525+15	Lt. 780'	cave	Outside ROW	0	740	Do not disturb. Protect during construction.		740
4-1442	1525+40	Lt. 880'	sinkhole	Outside ROW	0	733	Do not disturb. Protect during construction.	medium	733
4-1461	1525+40	Rt. 5'	sinkhole	Concrete Median	-5	744	Concrete cap.	low	739
4-1769	1525+55	Lt. 50'	spring	Shoulder	5	733	Springbox and pipe.		738
4-0008	1526+15	Rt. 80'	sinkhole	Embankment	-15	751	Concrete cap.	low	736
4-1463	1526+50	Rt. 160'	sinkhole	Infield		759	Aggregate cap. Geomembrane ditch.	high	
4-1462	1526+55	Rt. 75'	sinkhole	Embankment	-11	749	Aggregate cap.	medium	738
4-0009	1526+65	Rt. 65'	sinkhole	Embankment	-8	749	Aggregate cap.	low	741
4-1603	1527+25	Rt. 225'	sinkhole	Infield		763	Aggregate cap.	low	
4-1604	1527+30	Rt. 220'	sinkhole	Infield		762	Aggregate cap.	low	
4-1605	1527+30	Rt. 220'	sinkhole	Infield		762	Aggregate cap.	medium	
4-1464	1527+50	Rt. 225'	sinkhole	Infield		760	Aggregate cap.	medium	
4-1715	1527+60	Rt. 430	sinkhole	Ramp Backslope	-7	780	Aggregate cap. Geomembrane ditch.	high	773
4-1474	1528+20	Lt. 920'	sinkhole	Outside ROW	0	741	Do not disturb. Protect during construction.	high	741
4-1471	1529+60	Lt. 910'	sinkhole	Outside ROW	0	738	Do not disturb. Protect during construction.	low	738
4-1714	1529+60	Rt. 285'	sinkhole	Backslope NER	-17	782	Aggregate cap.	high	765
4-1470	1529+95	Lt. 910'	cave	Outside ROW	0	739	Do not disturb. Protect during construction.		739
4-1700	1529+95	Rt. 480'	sinkhole	Ex. SB SR 37 Pav't	0	767	No treatment high fill.	high	767
4-1439	1530+85	Lt. 570'	sinkhole	NWR Pav't	4	750	Concrete cap.	medium	754
4-1438	1532+20	Lt. 550'	sinkhole	NWR Shldr	4	751	Concrete cap.	medium	755
4-1465	1532+90	Rt. 310'	sinkhole	Ramp, pavement ?		763	Concrete cap.	medium	
4-1466	1534+25	Lt. 135'	sinkhole	Infield		755	Aggregate cap.	low	
4-1437	1535+05	Lt. 320'	sinkhole	Infield		743	Aggregate cap.	medium	
4-1805	1537+10	Lt. 135'	sinkhole	Infield		746	Aggregate cap. Geomembrane ditch.		
4-1469	1538+55	Lt. 805'	sinkhole	Outside ROW	0	737	Do not disturb. Protect during construction.	low	737
4-1468	1538+60	Lt. 645'	sinkhole	Outside ROW	0	743	Do not disturb. Protect during construction.	low	743
4-1467	1538+70	Lt. 730'	sinkhole	Outside ROW	0	744	Do not disturb. Protect during construction.	high	744
4-1806	1543+60	Lt. 185'	sinkhole	Embankment	-1	766	Aggregate cap. Geomembrane ditch.	low	765

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: BDM

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

KARST FEATURE TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	KT-01	150 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:43:49 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\2562750RD_KT01_S9.dgn

1 09/25/12 - Miscellaneous revisions

Line	Station	Location			Monument Type					
		Left	Center	Right	A	B	C	D	Section Corner	Offset
"A"										
SECTION LINE	1462+75.21	X					1			259.75'
SECTON LINE	1465+35.95			X			1			365.00'
PC	1471+42.94		X				1			
SECTION LINE	1476+50.00			X			1			395.59'
SECTON LINE	1478+71.54			X			1			290.00'
PI	1478+85.59	X						1		34.40'
PT	1486+23.99		X				1			
PC	1494+13.78		X				1			
"PR-A"										
PC	1495+09.39		X				1			
POC	1504+00.00		X				1			
POC	1514+00.00		X				1			
SECTION LINE	1521+31.53			X			1			320.00'
SECTION LINE	1522+28.88	X					1			436.09'
POC	1524+00.00		X					1		
PI	1525+66.33			X			1			1076.98'
POC	1534+00.00		X					1		
POC	1544+00.00		X					1		
PCC	1546+58.04		X					1		
SECTION LINE	1546+93.76	X					1			170.04'
SECTION LINE	1550+66.29			X			1			175.00'
POC	1553+25.00		X					1		
"BOLIN LANE"										
POT	17+30.00		X			1				
POT	22+00.00		X			1				
"PR-GLENVIEW DRIVE"										
POT	2+00.00		X			1				
PC	3+94.76		X			1				
PI	4+92.15	X					1			
PT	5+80.15		X			1				
POT	6+31.15		X			1				
POT	13+60.88		X			1				
RAMP "SER-3"										
PC	1509+99.31		X					1		
PI	1511+18.54			X				1		1.42'
PT	1512+37.73		X					1		
PC	1516+69.44		X					1		
PI	1523+26.60	X					1			256.66'
PT	1527+31.34		X					1		
RAMP "SEL-3"										
PC	513+90.65		X					1		
PI	514+87.32			X				1		3.11'
PT	515+83.72		X					1		
PC	528+16.76		X					1		
PI	528+91.78	X						1		0.98'
PCC	529+66.76		X					1		
PI	531+42.68	X						1		62.80'
PCC	532+61.63		X					1		
PI	534+37.55	X					1			62.80'
PCC	535+56.50		X					1		
PI	537+32.42	X					1			62.80'
PCC	538+51.37		X					1		
PI	539+26.39	X						1		0.98'
PCC	540+01.37		X					1		
PI	541+20.73	X						1		1.91'
PT	542+40.00		X					1		
PC	545+09.91		X					1		
PI	547+02.37	X						1		9.12'
PT	548+93.68		X					1		

Line	Station	Location			Monument Type					
		Left	Center	Right	A	B	C	D	Section Corner	Offset
RAMP "NWR-3"										
POT	1548+30.51		X					1		
PC	1548+44.80		X					1		
PI	1553+72.24	X					1			100.77'
PT	1558+49.08		X				1			
PC	1560+75.66		X					1		
POC	1570+00.00		X					1		
PT	1579+14.88		X					1		
PC	1580+50.32		X					1		
PI	1586+42.14			X				1		133.02'
PT	1591+55.78		X					1		
RAMP "NER-3"										
POT	500+00.00		X					1		
PI	501+00.00		X					1		
PC	508+30.76		X					1		
PI	510+90.32			X			1			22.29'
PT	513+44.78		X					1		
PC	516+90.47		X					1		
PI	523+75.16	X					1			111.32'
PT	530+12.09		X					1		
POC	533+08.07		X					1		
"SR 37"										
POT	166+61.03		X					1		
SECTION LINE	172+84.18	X					1			227.07'
SECTION LINE	173+58.80			X			1			151.64'
POT	173+71.20		X					1		
SECTION CORNER	175+04.04			X					1	29.03'
SECTION LINE	176+09.97			X			1			150.00'
"PR-SR 37"										
PC	1173+71.20		X					1		
PI	1179+00.12			X			1			87.23'
SECTION LINE	1180+74.43	X					1			224.36'
PT	1183+91.10		X					1		
Total					0	7	28	47	1	

* Type B Monuments Shall Be Used With The HMA Pavement Alternate

R/W Marker Table

Location Station	Offset (ft.)		Quantity
	Left	Right	Each
"A"			
1493+65.00		98	1
"PR-Glenview Drive"			
2+65.00		25	1
2+65.00		42	1
4+32.00		53	1
4+91.00		111	1
5+52.00		88	1
6+04.00		60	1
11+50.00		40	1
13+47.00		107	1
"Bolin Lane"			
22+71.00		58	1
22+66.00		9	1
22+65.00	9		1
22+61.00	45		1
TOTAL			13

RIGHT OF WAY FENCE TABLE - LEFT

Line	Station	Offset	to	Station	Offset	Length
"A"						
	1460+54.00	240		1464+85.00	294	434
	1464+85.00	294		1464+72.00	67	227
	1468+81.00	349		1468+09.00	67	291
	1468+81.00	349		1473+57.00	245	487
	1473+57.00	245		1480+57.00	245	700
	1480+57.00	245		1484+58.00	300	405
	1484+58.00	300		1485+75.00	300	117
	1485+75.00	300		1485+75.00	227	73
	1486+18.00	194		1487+90.00	200	172
	1487+90.00	200		1487+90.00	230	30
	1487+90.00	230		1489+35.00	230	145
	1489+35.00	230		1490+35.00	280	112
	1490+35.00	280		1491+60.00	264	126
	1491+60.00	264		1492+48.00	95	191
	1492+80.00	250		1493+56.00	112	158
	1492+80.00	250		1495+57.00	215	279
"PR-A"	1495+57.00	215		1500+58.00	215	501
	1500+58.00	215		1500+58.00	175	40
	1500+58.00	175		1505+58.00	175	500
	1505+58.00	175		1513+75.00	320	830
	1513+75.00	320		1518+50.00	375	478
	1518+50.00	375		1525+07.00	459	662
	1525+07.00	459		1528+20.00	650	367
	1528+20.00	650		1531+00.00	710	286
	1531+00.00	710		1537+00.00	630	605
	1537+00.00	630		1539+25.00	430	301
	1539+25.00	430		1544+50.00	225	564
	1544+50.00	225		1545+56.00	189	112
	1545+56.00	189		1546+94.00	170	139
"SR 37"	172+84.00	227		179+05.00	348	633
	172+84.00	227		173+48.00	153	98
Total						10,063

RIGHT OF WAY FENCE TABLE - RIGHT

Line	Station	Offset	to	Station	Offset	Length
"A"						
	1461+57.00	175		1461+57.00	365	190
	1461+57.00	365		1463+50.00	365	193
	1463+50.00	365		1464+23.00	67	307
	1467+05.00	365		1467+60.00	67	303
	1467+05.00	365		1472+22.00	140	564
	1472+22.00	140		1474+00.00	140	178
	1474+00.00	140		1475+00.00	160	102
	1475+00.00	160		1476+00.00	170	100
	1476+00.00	170		1477+00.00	150	102
	1477+00.00	150		1478+00.00	170	102
	1478+00.00	170		1480+00.00	155	201
	1480+00.00	155		1481+00.00	160	100
	1481+00.00	160		1481+80.00	143	82
	1482+40.00	290		1482+41.00	190	100
	1482+40.00	290		1483+58.00	290	118
	1483+58.00	290		1484+59.00	290	101
	1484+59.00	290		1485+56.00	180	147
	1485+56.00	180		1489+50.00	141	396
	1489+50.00	141		1489+50.00	86	55
"PR-A"						
	1495+34.00	175		1495+10.00	101	78
	1495+34.00	175		1507+95.00	175	1,261
	1507+95.00	175		1512+00.00	230	409
	1512+00.00	230		1517+00.00	320	508
	1517+00.00	320		1518+81.00	320	181
	1518+81.00	320		1520+00.00	550	259
	1520+00.00	550		1520+59.00	890	345
Total						6,481

MARK D. ORTON
REGISTERED
No. 18831
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — DATE 9/6/2012

DESIGNED: MDO DRAWN: BDM
CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

R/W FENCE, R/W MARKER AND MONUMENT TABLES

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MDS-01	151 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:44:00 AM
LOCATION: R:\05141 - I-69 Section 4\Microstation\Sheet Files\25627500RD_MDS01_A2.dgn

△ 09/25/12 - Miscellaneous revisions

PAVED SIDE DITCH, RIPRAP DITCH, AND SODDING SUMMARY TABLE

LOCATION					PAVED SIDE DITCH								RIPRAP DITCH				SODDING							
FROM STATION	TO STATION	LEFT	MEDIAN	RIGHT	ACTUAL LENGTH	CUT OFF WALLS (8' EQUIVAL. LENGTH EACH)	LUGS (8' EQUIVAL. LENGTH EACH)	TOTAL EQUIVALENT PAY TYPE					REVETMENT RIPRAP	CLASS I RIPRAP	CLASS 2 RIPRAP	GEOTEXTILES	FOR PAVED SIDE DITCHES	FOR DITCHES	FOR MEDIAN	FOR SHOULDER BREAK	SODDING AT BRIDGE CONE	TOTAL SODDING	NURSERY SODDING FOR LAWNS
					LFT	EACH	EACH	LFT	LFT	LFT	LFT		TONS	TONS	TONS	SYS	SYS	SYS	SYS	SYS	SYS	SYS	
Line "A"/"PR-A"																								
1462+50	1554+30	X																		2720		2,720		
1462+50	1554+30			X																2720		2,720		
1462+42	1464+45			X											389	346		188				188		
1462+50	1464+64		X																479			479		
1463+22	1465+95	X													522	465		253				253		
1467+68	1470+50		X																631			631		
1467+75	1472+25			X									517			667		250				250		
1468+00	1469+75	X																201				201		
1469+75	1472+25	X												383		398		186				186		
1470+50	1485+50		X																3,354			3,354		
1472+25	1475+30			X														350				350		
1482+00	1484+75			X														316				316		
1484+75	1490+10			X									614			793		298				298		
1485+50	1493+35		X																1,755			1,755		
1487+00	1488+75	X																201				201		
1488+75	1491+50	X											316			408		153				153		
1493+10	1496+00	X											333			430		162				162		
1494+13	1500+50		X																1,424			1,424		
1495+25	1497+00			X									201			260		98				98		
1496+00	1496+50	X																58				58		
1498+50	1502+00	X											402			519		195				195		
1500+00	1501+40			X														161				161		
1500+50	1515+50		X																3,354			3,354		
1501+40	1503+25			X									213			274		103				103		
1503+25	1505+00			X														201				201		
1515+50	1522+25		X																1,510			1,510		
1512+50	1512+97			X														50				50		
1512+97	1513+07			X										14		15		6				6		
1513+07	1515+13			X														216				216		
1515+91	1518+85			X														177				177		
1520+25	1521+75	X											90			140		84				84		
1524+41	1525+15	X											78			102		42				42		
1527+50	1527+94			X									46			61		25				25		
1527+94	1530+50			X														268				268		
1530+50	1534+24			X									391			516		208				208		
1534+24	1534+35			X														12				12		
1533+67	1536+54			X														300				300		
1553+00	1553+25			X									27			35		14				14		
1538+10	1538+15	X											5			7		3				3		
1538+15	1543+82	X																593				593		
1543+82	1544+77	X											100			131		53				53		
1544+77	1546+19	X																149				149		
1549+50	1553+25	X																392				392		
Line "BOLIN LANE"																								
21+52	22+50			X									91			124		55				55		
Line "PR-2-Glenview Drive"																								
5+50	10+25			X									545			704		264				264		
9+00	12+85	X																442				442		
10+25	13+49			X														373				373		
TABLE 1 SUB-TOTAL													3,969	397	911	6,395		7,100	12,507	5,440		25,047		

PAVED SIDE DITCH, RIPRAP DITCH, AND SODDING SUMMARY TABLE

LOCATION					PAVED SIDE DITCH								RIPRAP DITCH				SODDING							
FROM STATION	TO STATION	LEFT	MEDIAN	RIGHT	ACTUAL LENGTH	CUT OFF WALLS (8' EQUIVAL. LENGTH EACH)	LUGS (8' EQUIVAL. LENGTH EACH)	TOTAL EQUIVALENT PAY TYPE					REVETMENT RIPRAP	CLASS I RIPRAP	CLASS 2 RIPRAP	GEOTEXTILES	FOR PAVED SIDE DITCHES	FOR DITCHES	FOR MEDIAN	FOR SHOULDER BREAK	SODDING AT BRIDGE CONE	TOTAL SODDING	NURSERY SODDING FOR LAWNS
					LFT	EACH	EACH	LFT	LFT	LFT	LFT		TONS	TONS	TONS	SYS	SYS	SYS	SYS	SYS	SYS	SYS	
Line "SER-3"																								
1515+25	1518+00			X																		288		288
1520+16	1520+82			X									69			91								
1520+82	1521+90			X											188	173								
1520+83	1522+72	X												264		282								
1522+72	1524+00	X											77			120								
1524+00	1524+77	X																47				47		
1524+77	1525+90	X											68			106								
Line "NWR-3"																								
1558+43	1561+02			X										361		386								
1561+02	1562+91			X									198			261								
1562+91	1565+19			X														239				239		
1565+19	1566+01			X											143	132								
1571+91	1574+39			X										325		353								
1586+73	1594+75			X														838				838		
1554+38	1556+82	X																255				255		
1556+82	1558+01	X											125			164								
1558+01	1562+86	X												656	707									
1571+62	1573+05	X													225	215								
1576+13	1579+50	X												470		502								
1579+50	1583+25	X																392				392		
1583+25	1586+26	X											315			415								
1586+26	1588+17	X																200				200		
1590+72	1598+85	X																488				488		
Line "NER-3"																								
501+75	516+50			X														1,541				1,541		
521+25	525+60			X														455				455		
516+83	518+55	X											102			159								
Line "SEL-3"																								
519+62	520+99			X									144			189								
522+75	523+44			X									73			96								
523+44	524+44			X											162	153								
527+08	528+31			X											208	193								
528+31	529+86			X									162			214								
529+86	533+03			X														332				332		
533+03	538+42			X									563			743								
515+96	518+75	X																292				292		
519+75	520+75	X												140		149								
522+88	523+60	X													118	111								
526+05	529+53	X												485		519								
533+49	535+88	X																250				250		
535+88	536+68	X													140	128								
Pipe 81 Ditch																								
1535+85	1536+55	X																132				132		
1536+55	1536+71	X																113				113		
Pipe 82 Ditch																								
1527+94	1528+97			X									155			200								
TABLE 2 SUB-TOTAL													2,051	2,701	1,891	6,054		5,862	0	0		5,862		
TABLE 1 SUB-TOTAL													3,969	397	911	6,395		7,100	12,507	5,440		25,047		
TOTAL													**6,020**	**3,098**	**2,802**	**12,449**		**12,962**	**12,507**	**5,440**		**30,909**		

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: KCH

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PAVED SIDE DITCH & RIPRAP AND SODDING TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	MDS-02	152 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:59:32 AM
LOCATION: K:\105141 - I-69 Section 4\Microstation\Sheet Files\25627300RD_MDS02_A2.dgn

1 09/25/12 - Miscellaneous revisions

SUMMARY OF QUANTITIES AND APPROACH TABLE

LOCATION	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADII	DISTANCE BEYOND R/W LINE	GRADE (LESS THAN 10% NOT SHOWN)		EXCAVATION		HMA FOR APPROACHES, TYPE B			HMA FOR APPROACHES, TYPE B		QA/QC PCCP, 12 in.	QA/QC PCCP, 10.5 in.	QA/QC PCCP, 8.5 in.	9" SUBBASE FOR PCCP	D-1 CONTRACTION JOINTS	TERMINAL JOINT FOR PCCP AT STRUCTURES	HMA MATERIALS													CONCRETE CURBS			CONCRETE CENTER CURB, TYPE C	HMA MATERIAL FOR TACK COAT	COMPACTED AGGREGATE NO. 53	COMPACTED AGGREGATE FOR BASE NO. 53	COMPACTED AGGREGATE FOR SURFACE NO. 73		SUBGRADE TREATMENT, TYPE IA	SUBGRADE TREATMENT, TYPE IIA	SUBGRADE TREATMENT, TYPE IIC	REMARKS
										HMA SURFACE, TYPE B	HMA INTERMEDIATE, TYPE B	HMA BASE, TYPE B	HMA SURFACE, TYPE B	HMA INTERMEDIATE, TYPE B							OC/QA-HMA, 1.64 SURFACE, 9.5 mm		QC/QA-HMA, 1.64 INTERMED., 19.0 mm	OC/QA-HMA, 1.64 INTERMED., 19.0 mm			OC/QA-HMA, 1.64 BASE, 25.0 mm	QC/QA-HMA, 1.64 BASE, 25.0 mm			HMA SURFACE, TYPE B	HMA INTERMEDIATE, TYPE B	HMA BASE, TYPE B	MODIFIED INTERGAL CONCRETE CURB, 6"	MODIFIED INTERGAL CONCRETE CURB, 2"	MODIFIED INTERGAL CONCRETE CURB, 8"						DEPTH				
										LBS PER SYD			LBS PER SYD								LBS PER SYD																								
										165	275	660	165	275							165		275	330			660.0	880.0			165	275	660										4 in.				
		FEET	FEET	FEET	FEET	%	%	CUT	FILL	TONS	TONS	TONS	TONS	TONS	SYS	SYS	SYS	CYC	LFT	LFT	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	LFT	LFT	LFT	SYS	TONS	TONS	TONS	SYS	SYS	SYS	SYS	SYS	
I-69																																													
1462+50 to 1553+25	Mainline														36,291	39,393		24,479	45,411	320	1,335		780	1,774			3,700	2,611											12	10,164	3,811			109,986			
Ramp SEL-3																																													
513+90.65 to 547+06	Mainline																8,354	2,089	4,678	64																							10,841			
Ramp SER-3																																													
1510+00 to 1525+87.90	Mainline																3,571	893	2,000																							4,045			
Ramp NWR-3																																													
1548+30 to 1594+64.72	Mainline															23,867		5,967	23,868	91																							2,060			
Ramp NER-3																																													
500+00 to 530+92.29	Mainline															14,785		3,696	14,786																							1,374			
Bolin Lane																																													
18+00 to 22+00	Mainline																																									1		510			1,748		
Glenview Drive																																													
2+00 to 13+49.59	Mainline																																									4		3,075			8,018		
U-Turn Median Opening on I-69																																													
1500+00	Mainline									14	23	55																																	166	
Wheaton Court	Mod. PRA "B"									60	100																															235			706		
										74	123	55			36,291	78,045	11,925	37,124	90,743		1,335		780	1,774			3,700	2,611			745	1,250							17	10,164	7,631			128,306	10,472	166	

1

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

DESIGNED: MDO | DRAWN: BDM

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

APPROACH TABLE - PCCP

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	AT-01	153 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:44:26 AM
LOCATION: R:\10514\1 - I-69 Section 4\Microstation\Sheet Files\25627500RD_AT01_S9.dgn

1 09/25/12 - Miscellaneous revisions

SUMMARY OF QUANTITIES AND APPROACH TABLE

LOCATION	DESCRIPTION (APPROACH TYPE OR CLASS)	WIDTH	LENGTH	RADII	DISTANCE BEYOND R/W LINE	GRADE (LESS THAN 10% NOT SHOWN)		EXCAVATION		HMA FOR APPROACHES, TYPE B			HMA FOR APPROACHES, TYPE B		HMA MATERIALS																		CONCRETE CURBS			CONCRETE CENTER CURB, TYPE C	HMA MATERIAL FOR TACK COAT	COMPACTED AGGREGATE NO. 53	COMPACTED AGGREGATE FOR BASE NO. 53	COMPACTED AGGREGATE FOR SURFACE NO. 73		SUBGRADE TREATMENT, TYPE IA	SUBGRADE TREATMENT, TYPE IIA	SUBGRADE TREATMENT, TYPE IIC	REMARKS
										HMA SURFACE, TYPE B	HMA INTERMEDIATE, TYPE B	HMA BASE, TYPE B	HMA SURFACE, TYPE B	HMA INTERMEDIATE, TYPE B	QC/QA-HMA, 1, 64 SURFACE, 9.5 mm	QC/QA-HMA, 2, 70 SURFACE, 9.5 mm	QC/QA-HMA, 4, 76 SURFACE, 9.5 mm	QC/QA-HMA, 5, 76 SURFACE, 9.5 mm	QC/QA-HMA, 1, 64 INTERMED., 19.0 mm	QC/QA-HMA, 2, 70 INTERMED., 19.0 mm	QC/QA-HMA, 4, 76 INTERMED., 19.0 mm	QC/QA-HMA, 5, 76 INTERMED., 19.0 mm	QC/QA-HMA, 5, 76 INTERMED., OG 19.0 mm	QC/QA-HMA, 5, 76 INTERMED., OG 19.0 mm	QC/QA-HMA, 1, 64 BASE, 19.0 mm	QC/QA-HMA, 1, 64 BASE, 19.0 mm	QC/QA-HMA, 2, 64 BASE, 19.0 mm	QC/QA-HMA, 4, 64 BASE, 19.0 mm	QC/QA-HMA, 5, 64 BASE, 19.0 mm	QC/QA-HMA, 5, 64 BASE, 19.0 mm	HMA SURFACE, TYPE B	HMA INTERMEDIATE, TYPE B	HMA BASE, TYPE B	MODIFIED INTERGAL CONCRETE CURB, 6"	MODIFIED INTERGAL CONCRETE CURB, 2"	MODIFIED INTERGAL CONCRETE CURB, 8"					DEPTH				
																																						4 in.				
		FEET	FEET	FEET	FEET	%	%	CUT	FILL	TONS	TONS	TCNS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	TONS	LFT	LFT	LFT	SYS	TONS	TONS	TONS	SYS	SYS	SYS	SYS	SYS	
										LBS PER SYD			LBS PER SYD		LBS PER SYD																												
										165	275	660	165	275	165	165	165	165	275	275	275	275	250	300	330	385	330.0	330.0	330	385	165	275	660											
I-69																																											
1462+50 to 1553+25	Mainline														2,131			5,448	3,552			9,134	6,843	6,470	1,749	7,906			6,630	12,757							93	10,164	3,811			109,986			
Ramp SEL-3																																											
513+90.65 to 547+06	Mainline															295				491			446				589											3					3,571		
Ramp SER-3																																											
1510+00 to 1525+87.90	Mainline															689				1,149			1,044				1,378											6					8,354		
Ramp NWR-3																																											
1548+30 to 1594+64.72	Mainline																1,977				3,411		3,824				4,483	5,885										18					26,997		
Ramp NER-3																																											
500+00 to 530+92.29	Mainline																1,225				512		561				364	1,299										12					16,875		
Bolin Lane																																											
18+00 to 22+00	Mainline																															125	210					1		510			1,748		
Glenview Drive																																											
2+00 to 13+49.59	Mainline																															620	1,040					4		3,075			8,018		
U-Turn Median Opening on I-69																																											
1500+00	Mainline									14	23	55																														166		
Wheaton Court	Mod. PRA "B"									60	100																													235			706		
										74	123	55			2,131	984	3,202	5,448	3,552	1,640	3,923	9,134	12,718	6,470	1,749	7,906	6,814	7,184	6,630	12,757	745	1,250					137	10,164	7,631			153,858	22,397	166	

△1 09/25/12 - Miscellaneous revisions

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

APPROACH TABLE - HMA

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	AT-02	154 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:44:33 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\25627300RD_A102_S2.dgn

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE									OUTLET PROTECTORS						
	Type 4 Pipe																					Location			
Underdrain Pipe Limits	4" LFT	6" LFT	Geotextile for Underdrains SYS	Aggregate for Underdrains CYS	HMA for Underdrains TONS	Special Grade %	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe LFT	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill CYS	HMA for Underdrains TONS	Outlet Protector No. ___	Outlet Protector Type	Outside Left	Median Left	Median Right	Outside Right	Remarks
Line PR-A: Mainline Northbound Median Side																										
1462+50							667.87	N																		
1464+18		168	115.1	15.1		P.G.	663.36	Y			2	67.00	1464+18	662.00	26A	630.53			6.03		26A	1				X	
1467+68							656.35	N																		
1470+00		232	158.9	20.9		P.G.	652.07	Y			2	25.00	1470+00.00	648.93			910	648.43								
1470+00							652.07	N																		
1473+00		300	205.5	27.0		-1.40%	647.88	Y			2	25.00	1473+00.00	646.91			911	646.41								
1473+00							647.88	Y			2	25.00	1473+00.00	646.91			911	646.41								
1476+00		300	205.5	27.0		0.03%	647.98	N																		
1476+00							647.98	Y			2	25.00	1476+00.00	649.23			912	648.73								
1479+00		300	205.5	27.0		P.G.	652.52	N																		
1479+00							652.52	Y			2	62.00	1479+00.00	655.00	27	631.06			5.58		27	1				X	
1482+00		300	205.5	27.0		P.G.	661.25	N																		
1482+00							661.25	Y			2	25.00	1482+00.00	665.65			913	665.15								
1485+00		300	205.5	27.0		P.G.	670.97	N																		
1485+00							670.97	Y			2	62.00	1485+00.00	674.00	28	647.40			5.58		28	1				X	
1488+00		300	205.5	27.0		P.G.	680.01	N																		
1488+00							680.01	Y			2	25.00	1488+00.00	683.79			914	683.29								
1489+50		150	102.8	13.5		P.G.	684.20	N																		
1489+50							684.20	Y			2	60.00	1489+50.00	686.00	29	678.03			5.40		29	1				X	
1493+35		385	263.7	34.7		P.G.	700.60	N																		
1495+00							700.20	Y			2	25.00	1495+00.00	699.92			916	699.42								
1497+00		200	137.0	18.0		P.G.	701.07	N																		
1497+00							701.07	Y			2	67.00	1497+00.00	700.75	30	698.75			6.03		30	1				X	
1500+50		350	239.8	31.5		2.44%	709.62	N																		
1500+50							709.62	Y			2	25.00	1500+50.00	709.45			918	708.95								
1503+00		250	171.3	22.5		0.09%	709.84	N																		
1503+00							709.84	Y			2	67.00	1503+00.00	710.97	31	708.97			6.03		31	1				X	
1506+00		300	205.5	27.0		P.G.	712.62	N																		
1506+00							712.62	Y			2	25.00	1506+00.00	713.39			919	712.89								
1510+00		400	274.0	36.0		0.97%	715.06	N																		
1510+00							715.06	N																		
1512+00		200	137.0	18.0		-0.20%	714.66	Y			2	25.00	1512+00.00	714.50			920	714.00								
1512+00						1.10%	714.66	Y			2	25.00	1512+00.00	714.50			920	714.00								
1514+00		200	137.0	18.0			716.86	N																		
1514+00							716.86	Y			2	130.00	1514+00.00	716.14	32	714.64			11.70		32	1				X	Outlet to Rt. Ditch Ramp 'SER'
1518+00		400	274.0	36.0		1.00%	720.86	N																		
1518+00							720.86	Y			2	20.00	1518+00.00	720.63			921	720.13	1.80							
1522+00		400	274.0	36.0		1.31%	726.08	N																		

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
I-69 - NORTHBOUND

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-01	155 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

DATE: 10/1/2012
TIME: 10:44:41 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275GRD_UD01_S3.dgn

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE									OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe 4" LFT	Type 4 Pipe 6" LFT	Geotextile for Underdrains SYS	Aggregate for Underdrains CYS	HMA for Underdrains TONS	Special Grade %	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe LFT	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill CYS	HMA for Underdrains TONS	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
Line PR-A: Mainline Northbound Median Side																										
1522+00							726.08	Y			2	70.00	1522+00.00	727.72	33	725.72			6.30		33	1				X	
1526+00		400	274.0	36.0		P.G.	734.56	N																		
1526+00							734.56	Y					1526+00.00	736.41			922	735.91								
1529+00		300	205.5	27.0		P.G.	740.92	N																		
1529+00							740.92	Y					1529+00.00	742.77			923	742.27								
1533+00		400	274.0	36.0		P.G.	749.40	N																		
1533+00							749.40	Y					1533+00.00	751.25			924	750.75								
1536+00		300	205.5	27.0		P.G.	755.76	N																		
1536+00							755.76	Y					1536+00.00	757.61			925	757.11								
1539+00		300	205.5	27.0		P.G.	762.12	N																		
1539+00							762.12	Y					1539+00.00	763.82			926	763.32								
1542+00		300	205.5	27.0		P.G.	767.57	N																		
1542+00							767.57	Y					1542+00.00	767.99			927	767.49								
1546+00		400	274.0	36.0		P.G.	770.79	N																		
1546+00							770.79	N																		
1547+50		150	102.8	13.5		P.G.	769.43	Y					1547+50.00	768.53			928	768.03	-							
1547+50							769.43	N																		
1551+50		400	274.0	36.0		P.G.	767.40	Y					1551+50.00	767.10			929	766.60								
1551+50							767.40	Y					1551+50.00	767.10			929	766.60								
1553+00		150	102.8	135.0		1.07%	769.00	N																		
1553+00							769.00	Y					1553+00.00	768.92			930	768.42								
1553+80		80	54.8	72.0		0.20%	769.16	N																		
Sub Total	-	8,615.00	5901.3	961.7	-						38	880.00							54.45	-		8.00				

1 09/25/12 - Miscellaneous revisions

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: BDM

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
I-69 - NORTHBOUND

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-02	156 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:44:52 AM
LOCATION: R:\10514 - I-69 Section 4\Microstation\Sheet Files\2562750RD_UD01_S9.dgn

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE									OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe 4" LFT	Type 4 Pipe 6" LFT	Geotextile for Underdrains SYS	Aggregate for Underdrains CYS	HMA for Underdrains TONS	Special Grade %	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe LFT	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector[2]	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill CYS	HMA for Underdrains TONS	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
Line PR-A: Mainline Northbound Outside Shoulder																										
1462+50							667.60	N																		
1464+18		168	115.1	15.1		P.G.	663.10	Y			2	28	1464+18	662.00	1A	630.53			2.52		1A	1A				X	
1467+68							655.47	N																		
1470+00		232	158.9	20.9		P.G.	649.25	Y			2	28	1470+00.00	648.00	1	624.92			2.52		1	1				X	
1470+00							649.25	N																		
1473+00		300	205.5	27.0		-0.94%	646.44	Y			2	28	1473+00.00	646.00	2	633.92			2.52		2	1				X	
1473+00							646.44	Y			2	28	1473+00.00	646.00	2	633.92			2.52		2	1				X	
1476+00		300	205.5	27.0		0.77%	648.76	N																		
1476+00							648.76	Y			2	28	1476+00.00	648.00	3	627.92			2.52		3	1				X	
1479+00		300	205.5	27.0		P.G.	655.52	N																		
1479+00							655.52	Y			2	30	1479+00.00	655.00	4	631.06			2.70		4	1				X	
1482+00		300	205.5	27.0		P.G.	665.18	N																		
1482+00							665.18	Y			2	30	1482+00.00	664.50	5	639.00			2.70		5	1				X	
1485+00		300	205.5	27.0		P.G.	674.77	N																		
1485+00							674.77	Y			2	30	1485+00.00	673.00	6	647.40			2.70		6	1				X	
1488+00		300	205.5	27.0		P.G.	684.11	N																		
1488+00							684.11	N			2	28		683.50	7	666.55			2.52		7	1				X	
1489+50		150	102.8	13.5		P.G.	682.74	Y					1489+50.00	2.00												
1489+50							682.74	Y			2	28	1489+50.00	686.00	8	674.11			2.52		8	1				X	
1493+35		385	263.7	34.7		P.G.	699.22	N																		
1495+00							698.79	Y			2	35	1495+00.00	698.00	9	683.20			3.15		9	1				X	
1497+00		200	137.0	18.0		P.G.	705.27	N																		
1497+00							705.27	Y			2	35	1497+00.00	704.00	10	698.75			3.15		10	1				X	
1500+50		350	239.8	31.5		P.G.	709.11	N																		
1500+50							709.11	Y			2	47	1500+50.00	708.00	11	696.10			4.23		11	1				X	
1503+00		250	171.3	22.5		P.G.	713.03	N																		
1503+00							713.03	Y			2	48	1503+00.00	710.97	12	708.97			4.32		12	1				X	
1506+00		300	205.5	27.0		P.G.	715.28	N																		
1506+00							715.28	Y			2	48	1506+00.00	714.83	13	713.33			4.32		13	1				X	
1508+00		200	137.0	18.0		0.40%	716.08	N																		
1508+00							716.08	Y			2	49	1508+00.00	715.76	14	714.76			4.41		14	1				X	
1512+00		400	274.0	36.0		0.20%	716.88	N																		
1512+00							716.88	Y			2	65	1512+00.00	713.32	15	711.32			5.85		15	1				X	
1514+00		200	137.0	18.0		0.48%	717.83	N																		
1514+00							717.83	Y			2	98	1514+00.00	716.82	16	714.82			8.82		16	1				X	
1518+00		400	274.0	36.0		P.G.	722.54	N																		
1518+00							722.54	Y			2	30	1518+00.00	722.28	17	721.28			2.70		17	1				X	
1522+00		400	274.0	36.0		P.G.	730.86	N																		

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: BDM

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
I-69 - NORTHBOUND

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-03	157 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions

DATE: 10/1/2012
TIME: 10:45:01 AM
LOCATION: R:\105141 - I-69 Section 4\Microstation\Sheet Files\256275000RD_UD01_S3.dgn

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe 4" LFT	Type 4 Pipe 6" LFT	Geotextile for Underdrains SYS	Aggregate for Underdrains CYS	HMA for Underdrains TONS	Special Grade %	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe LFT	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector[2]	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill CYS	HMA for Underdrains TONS	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
Line PR-A: Mainline Northbound Outside Shoulder																											
1522+00							730.86	Y			2	38	1522+00.00	727.55	18	725.55			3.42		18	1				X	
1526+00		400	274.0	36.0		P.G.	739.34	N																			
1526+00							739.34	Y			2	30	1526+00.00	736.20	19	734.20			2.70		19	1				X	
1529+00		300	205.5	27.0		P.G.	745.70	N																			
1529+00							745.70	Y			2	30	1529+00.00	742.63	20	740.63			2.70		20	1				X	
1533+00		400	274.0	36.0		P.G.	754.18	N																			
1533+00							754.18	Y			2	70	1533+00.00	751.39	21	749.39			6.30		21	1				X	
1536+00		300	205.5	27.0		P.G.	760.54	N																			
1536+00							760.54	Y			2	70	1536+00.00	759.09	22	757.09			6.30		22	1				X	
1539+00		300	205.5	27.0		P.G.	766.82	N																			
1539+00							766.82	Y			2	57	1539+00.00	763.97	23	761.97			5.13		23	1				X	Sta. 1539+00 in Rock Cut
1542+00		300	205.5	27.0		P.G.	770.99	N																			
1542+00							770.99	Y			2	57	1542+00.00	762.77	24	760.77			5.13		24	1				X	Sta. 1542+00 in Rock Cut
1546+00		400	274.0	36.0		P.G.	772.73	N																			
1546+00							772.73	N																			
1550+00		400	274.0	36.0		P.G.	768.00	Y			2	41	1550+00.00	766.00	25	764.00			3.69		25	1				X	Sta. 1546+00 in Rock Cut
1550+00							768.00	Y			2	22	1550+00.00	768.40	26	766.40			2.00		26	1				X	Sta. 1550+00 in Rock Cut
1554+30		430	294.6	38.7		P.G.	768.24	N																			
Sub Total	-	8,665.00	5935.5	779.9	-						56	1156							104.06	-		27.00					

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: BDM | CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
I-69 - NORTHBOUND

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-04	158 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe		Geotextile for Underdrains	Aggregate for Underdrains	HMA for Underdrains	Special Grade	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill	HMA for Underdrains	Outlet Protector No. ___	Outlet Protector Type	Location				Remarks
	4"	6"																					Outside Left	Median Left	Median Right	Outside Right	
	LFT	LFT	SYS	CYS	TONS	%		(Y/N)				LFT							CYS	TONS							
Line PR-A: Mainline Southbound Median Side																											
1462+50							667.87	N																			
1464+50		200	137.0	18.0		P.G.	662.50	Y			2	67.00	1464+50	661.00	34A	638.74			6.03		34A	1				X	
1467+68							656.31	N																			
1470+00		232	158.9	20.9		P.G.	652.03	Y			2	25.00	1470+00.00	648.93			910	648.43									
1470+00							652.03	N																			
1473+00		300	205.5	27.0		-1.46%	647.65	Y			2	25.00	1473+00.00	646.91			911	646.41									
1473+00							647.65	Y			2	25.00	1473+00.00	646.91			911	646.41									
1476+00		300	205.5	27.0		0.03%	647.75	N																			
1476+00							647.75	Y			2	25.00	1476+00.00	649.23			912	648.73									
1479+00		300	205.5	27.0		P.G.	652.29	N																			
1479+00							652.29	Y			2	61.00	1479+00.00	655.00	58	644.38			5.49		58	1	X				
1482+00		300	205.5	27.0		P.G.	661.03	N																			
1482+00							661.03	Y			2	25.00	1482+00.00	665.65			913	665.15									
1485+00		300	205.5	27.0		P.G.	670.75	N																			
1485+00							670.75	Y			2	61.00	1485+00.00	674.00	59	637.75			5.49		59	1	X				
1488+00		300	205.5	27.0		P.G.	679.97	N																			
1488+00							679.97	Y			2	25.00	1488+00.00	683.79			914	683.29									
1489+50		150	102.8	13.5		P.G.	684.16	N																			
1489+50							684.16	Y			2	59.00	1489+50.00	687.00	60	645.67			5.31		60	1	X				
1493+35		385	263.7	34.7		P.G.	700.56	N																			
1495+00							700.47	Y			2	25.00	1495+00.00	699.92			916	699.42									
1497+00		200	137.0	18.0		P.G.	701.49	N																			
1497+00							701.49	Y			2	80.00	1497+00.00	702.00	61	676.16			7.20		61	1	X				
1500+50		350	239.8	31.5		P.G.	707.12	N																			
1500+50							707.12	Y			2	25.00	1500+50.00	708.65			918	707.95									
1503+00		250	171.3	22.5		P.G.	710.26	N																			
1503+00							710.26	Y			2	80.00	1503+00.00	710.00	62	705.29			7.20		62	1	X				
1506+00		300	205.5	27.0		P.G.	713.04	N																			
1506+00							713.04	Y			2	25.00	1506+00.00	713.39			919	712.89									
1508+00		200	137.0	18.0		0.74%	714.52	N																			
1508+00							714.52	Y			2	90.00	1508+00.00	713.00	63	700.50			8.10		63	1	X				
1512+00		400	274.0	36.0		0.22%	715.41	N																			
1512+00							715.41	N			2	25.00		714.71			920	714.21									
1514+00		200	137.0	18.0		-0.03%	715.34	Y					1514+00.00	2.00													
1514+00							715.34	Y			2	120.00	1514+00.00	714.00	64	690.01			10.80		64	1	X				
1518+00		400	274.0	36.0		P.G.	718.17	N																			
1518+00							718.17	Y			2	20.00	1518+00.00	720.63			921	720.13	1.80								
1522+00		400	274.0	36.0		P.G.	726.50	N																			
1522+00							726.50	Y			2	63.00	1522+00.00	725.96	65	723.96			5.67		65	1	X				
1522+90		90	61.7	8.1		3.89%	730.00	N																			
Sub Total	-	5,557.00	3806.5	500.1	-						40	951.00							63.09	-		9.00					

1 09/25/12 - Miscellaneous revisions

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: BDM

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
I-69 - SOUTHBOUND

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-05	159 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:45:19 AM
LOCATION: R:\10141 - I-69 Section 4\Microstation\Sheet Files\256275OORD_UDDI_S9.dgn

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe 4" LFT	Type 4 Pipe 6" LFT	Geotextile for Underdrains SYS	Aggregate for Underdrains CYS	HMA for Underdrains TONS	Special Grade %	Flow Line Elevation @ Underdrain Pipe Limit[1]	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe LFT	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector[2]	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill CYS	HMA for Underdrains TONS	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
Line PR-A: Mainline Southbound Outside Shoulder																											
1462+50							667.60	N																			
1464+50		200	137.0	18.0		P.G.	662.24	Y			2	29.00	1464+50.00	661.00	34A	638.74			2.61		34A	1	X				
1467+68							655.47	N																			
1470+00		232	158.9	20.9		P.G.	649.25	Y			2	29.00	1470+00.00	648.00	35	617.90			2.61		35	1	X				
1470+00							649.25	N																			
1473+00		300	205.5	27.0		-0.45%	647.90	Y			2	29.00	1473+00.00	647.00	36	640.54			2.61		36	1	X				
1473+00							647.90	Y			2	29.00	1473+00.00	647.00	36	640.54			2.61		36	1	X				
1476+00		300	205.5	27.0		0.77%	650.22	N																			
1476+00							650.22	Y			2	29.00	1476+00.00	649.00	37	642.46			2.61		37	1	X				
1479+00		300	205.5	27.0		P.G.	656.98	N																			
1479+00							656.98	Y			2	29.00	1479+00.00	655.00	38	644.38			2.61		38	1	X				
1482+00		300	205.5	27.0		P.G.	666.64	N																			
1482+00							666.64	Y			2	29.00	1482+00.00	665.00	39	644.26			2.61		39	1	X				
1485+00		300	205.5	27.0		P.G.	676.22	N																			
1485+00							676.22	Y			2	29.00	1485+00.00	675.00	40	641.79			2.61		40	1	X				
1488+00		300	205.5	27.0		P.G.	684.11	N																			
1488+00							684.11	N			2	29.00		683.00	41	642.43			2.61		41	1	X				
1489+50		150	102.8	13.5		P.G.	682.74	Y					1489+50.00	2.00													
1489+50							682.74	Y			2	27.00	1489+50.00	685.00	42	645.67			2.43		42	1	X				
1493+35		385	263.7	34.7		P.G.	699.22	N																			
1495+00							695.84	Y			2	34.00	1495+00.00	694.00	43	668.96			3.06		43	1	X				
1497+00		200	137.0	18.0		P.G.	702.32	N																			
1497+00							702.32	Y			2	48.00	1497+00.00	701.00	44	676.16			4.32		44	1	X				
1500+50		350	239.8	31.5		P.G.	705.47	N																			
1500+50							705.47	Y			2	50.00	1500+50.00	704.00	45	694.04			4.50		45	1	X				
1503+00		250	171.3	22.5		P.G.	710.02	N																			
1503+00							710.02	Y			2	48.00	1503+00.00	709.00	46	705.29			4.32		46	1	X				
1506+00		300	205.5	27.0		P.G.	712.27	N																			
1506+00							712.27	Y			2	42.00	1506+00.00	709.09	47	707.09			3.78		47	1	X				
1508+00		200	137.0	18.0		0.22%	712.70	N																			
1508+00							712.70	Y			2	58.00	1508+00.00	702.50	48	700.50			5.22		48	1	X				Sta. 1508+00 in Rock Cut
1512+00		400	274.0	36.0		0.22%	713.58	N																			
1512+00							713.58	Y			2	67.00	1512+00.00	692.41	49	690.41			6.03		49	1	X				
1514+00		200	137.0	18.0		0.23%	714.05	N																			
1514+00							714.05	Y			2	88.00	1514+00.00	692.01	50	690.01			7.92		50	1	X				
1518+00		400	274.0	36.0		P.G.	718.76	N																			

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
I-69 - SOUTHBOUND

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-06	160 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:45:30 AM
LOCATION: R:\10514 - I-69 Section 4\Microstation\Sheet Files\2562750RD_UD01_S9.dgn

1 09/25/12 - Miscellaneous revisions

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe		Geotextile for Underdrains	Aggregate for Underdrains	HMA for Underdrains	Special Grade	Flow Line Elevation @ Underdrain Pipe Limit[1]	Outlet Pipe Required	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector[2]	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill	HMA for Underdrains	Outlet Protector No. ___	Outlet Protector Type	Location				Remarks
	4"	6"																					Outside Left	Median Left	Median Right	Outside Right	
	LFT	LFT	SYS	CYS	TONS	%		(Y/N)				LFT							CYS	TONS							
Line PR-A: Mainline Southbound Outside Shoulder																											
1518+00							718.76	Y					1518+00.00	718.76			921b	718.26									
1522+00		400	274.0	36.0		P.G.	727.91	N																			
1522+00							727.91	Y			2	31.00	1522+00.00	725.96	51	723.96			2.79		51	1	X				
1526+00		400	274.0	36.0		P.G.	736.39	N																			
1526+00							736.39	Y					1526+00.00	735.56			922a	735.06									
1529+00		300	205.5	27.0		P.G.	742.75	N																			
1529+00							742.75	Y			2	32.00	1529+00.00	740.80	52	738.80			2.88		52	1	X				Sta. 1529+00 in Rock Cut
1533+00		400	274.0	36.0		P.G.	751.23	N																			
1533+00							751.23	Y			2	32.00	1533+00.00	749.28	53	747.28			2.88		53	1	X				Sta. 1533+00 in Rock Cut
1536+00		300	205.5	27.0		P.G.	757.59	N																			
1536+00							757.59	Y			2	91.00	1536+00.00	751.23	54	749.23			8.19		54	1	X				
1539+00		300	205.5	27.0		P.G.	763.80	N																			
1539+00							763.80	Y			2	71.00	1539+00.00	757.40	55	755.40			6.39		55	1	X				
1542+00		300	205.5	27.0		P.G.	767.97	N																			
1542+00							767.97	Y			2	62.00	1542+00.00	763.20	56	761.20			5.58		56	1	X				
1546+00		400	274.0	36.0		P.G.	769.55	N																			
1546+00							769.55	N																			
1550+00		400	274.0	36.0		P.G.	769.46	Y			2	44.00	1550+00.00	768.00	57	766.00			3.96		57	1	X				
1550+00							769.46	Y			2	30.00	1550+00.00	768.25	57	766.25			2.70		57	1	X				Sta. 1550+00 in Rock Cut
1554+00		400	274.0	36.0		P.G.	769.92	N																			
1554+00							769.92	Y			2	30	1554+00.00	769.00	58	768.00			2.70		58	1	X				Sta. 1554+00 in Rock Cut
1554+80		80.00	54.8			0.20%	770.08	Y																			
Sub Total	-	8747	5,991.7	780.0	-						54	1,146.00							103.14	-		27.00					

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL _____ DESIGN ENGINEER 9/6/2012 DATE

DESIGNED: MDO DRAWN: BDM

CHECKED: HCF CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
I-69 - SOUTHBOUND

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-07	161 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:45:41 AM
LOCATION: R:\10541 - I-69 Section 4\Microstation\Sheet Files\256279UDRD_UD01_S9.dgn

1 09/25/12 - Miscellaneous revisions

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe 4" LFT	Type 4 Pipe 6" LFT	Geotextile for Underdrains SYS	Aggregate for Underdrains CYS	HMA for Underdrains TONS	Special Grade %	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe LFT	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill CYS	HMA for Underdrains TONS	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
Line "NER-3" Outside Right																											
500+00		400	268.0	17.3			718.43	Y			2	20	500+00	718.00		712.00					1	2				X	
504+00							727.75	N																			
504+00		400	268.0	17.3			727.75	Y			2	55	1595+00 "NWR-3"	727.50			997	727									
508+00							737.67	N																			
508+00		400	268.0	17.3			737.67	Y			2	16	508+00	737.62		737.12					2	2				X	
512+00							747.48	Y			2	17	512+00	747.23		745.85					3	2				X	
512+00		300	201.0	13.0			747.48	Y			2	17	512+00	747.23		745.85					3	2				X	
515+00							753.27	N																			
515+00		198	132.7	8.6			753.27	Y			2	15	515+00	753.00		751.00					4	2				X	
516+98							754.83	N																			
516+98		302	202.4	13.1			754.83	N																			
520+00							753.41	Y			2	15	520+00	753.20		751.10					5	2				X	
520+00		400	268.0	17.3			753.41	N																			
524+00							751.41	Y			2	15	524+00	751.20		749.48					6	2				X	
524+00		315	211.1	13.7			751.41	N																			
527+15							749.98	Y			2	15	527+15	749.80		748.96					7	2				X	
527+15		385	258.0	16.7			749.98	Y			2	15	527+15	749.8		748.96					7	2				X	
531+00							756.60	N																			
531+00		100	67.0	4.4			756.60	Y			2	20	531+00	756.38		754.36					8	2				X	
532+00							762.69	N																			
SUBTOTAL		**3200**	**2144**	**139**							**22**	**220**															

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

William James Williams — REGISTERED — No. 10810125 — STATE OF INDIANA — PROFESSIONAL ENGINEER

DESIGNED: JB | DRAWN: ETD

CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
RAMP - "NER-3"

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-08	162 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:20:05 AM
LOCATION: N:\Projects\25627500Y Drawings\Y4 Trans\Y1 Trans\Cadd\Wood\SY\10_Tables\M_Underdrain Tables\25627500D01-S9_MER.dgn

1 9/25/12 - Updated Notes And Labels

UNDERDRAIN TABLE

Underdrain Pipe Limits	Type 4 Pipe 4" LFT	Type 4 Pipe 6" LFT	Geotextile for Underdrains SYS	Aggregate for Underdrains CYS	HMA for Underdrains TONS	Special Grade %	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No.	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe LFT	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No.	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No.	Structure Invert Elevation	B Borrow for Structure Backfill CYS	HMA for Underdrains TONS	Outlet Protector No.	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
Line "NER-3" Outside Left																											
500+10		375	251.3	16.2			718.90	Y			2	22	1598+75 "NWR-3"	718.75			996	716.3									
503+85							727.64	N																			
503+85		565	378.6	24.5			727.64	Y			2	19	1595+00 "NWR-3"	727.50			997	727									
509+50							740.08	Y			2	18	509+50	740.03		739.19					9	2	X				
509+50		250	167.5	10.8			740.08	Y			2	18	509+50	740.03		739.19					9	2	X				
512+00							745.46	Y			2	18	512+00	745.25		742.76					10	2	X				
512+00		191	128.0	8.3			745.46	Y			2	18	512+00	745.25		742.76					10	2	X				
513+91							750.68	N																			
515+29		169	113.3	7.4			754.00	Y			2	52	515+29	753.50		751.5					11	2				X	
516+98							756.39	N																			
516+98		352	235.9	15.3			756.39	N																			
520+50							754.83	Y			2	22	520+50	754.00		749.01					12	2	X				
520+50		400	268.0	17.3			754.83	N																			
524+50							752.83	Y			2	22	524+50	752.20		746.91					13	2	X				
524+50		263	175.9	11.4			752.83	N																			
527+13							751.65	Y			2	20	527+13	751.40		745.43					14	2	X				
527+13		380	254.3	16.4			751.65	Y			2	20	527+13	751.40		745.43					14	2	X				
530+92							756.97	N																			
SUBTOTAL		**2944**	**1973**	**128**							**22**	**249**															

William James Williams REGISTERED No. 10810125 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER 9/4/2012 DATE

DESIGNED: JB DRAWN: ETD

CHECKED: RT CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
RAMP - "NER-3"

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	UD-09 / 163 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/3/2012 TIME: 10:37:14 AM

1 9/25/12 - Updated Notes And Labels

UNDERDRAIN TABLE

Underdrain Pipe Limits	UNDERDRAIN PIPE: Type 4 Pipe 4" (LFT)	Type 4 Pipe 6" (LFT)	Geotextile for Underdrains (SYS)	Aggregate for Underdrains (CYS)	HMA for Underdrains (TONS)	Special Grade (%)	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No.	Structure Invert Elevation	OUTLET PIPE: 45 Degree Elbows Required (1 or 2)	6" Outlet Pipe (LFT)	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill (CYS)	HMA for Underdrains (TONS)	OUTLET PROTECTORS: Outlet Protector No.	Outlet Protector Type	Location: Outside Left	Median Left	Median Right	Outside Right	Remarks
Line "NWR-3" Outside Right																											
1548+31		44	39.7	3.9		0.24%	767.41	N																			
1548+75							767.30	Y			2	20	1548+75	767.00		764.58					15	2				X	
1548+75		400	356.8	34.4		0.47%	767.30	N																			
1552+75							765.43	Y			2	15	1552+75	765.00		762.16					16	2				X	
1552+75		375	251.3	16.2		0.20%	765.43	N																			
1556+50							764.68	Y			2	15	1556+50	764.50		759.88					17	2				X	
1556+50		425	379.1	36.6		1.52%	764.68	N																			
1560+75							758.05	Y			2	18	1560+75	757.80		730.29					18	2				X	
1560+75		75	66.9	6.5		0.44%	758.05	Y			2	17	1560+75	758.00		730.29					19	2				X	
1561+50							758.54	N																			
1561+50		400	356.8	34.4			758.54	N																			
1565+50							751.34	Y			2	21	1565+50	751.00		740.94					20	2				X	
1565+50		325	217.8	14.1		0.82%	752.52	Y			2	21	1565+50	751.00		740.94					20	2				X	
1568+75							748.5	Y			2	17	1568+75	748.45		747.45					21	2				X	
1568+75		375	334.5	32.3		0.79%	748.5	Y			2	17	1568+75	748.45		747.45					21	2				X	
1572+50							751.46	Y			2	21	1572+50	751.33		739.86					22	2				X	
1572+50		400	356.8	34.4			751.46	Y			2	21	1572+50	751.33		739.86					22	2				X	
1576+50							756.91	N																			
1576+50		125	111.5	10.8			756.91	Y			2	17	1576+50	756.80		722.48					23	2				X	
1577+75							757.58	N																			
1577+75		325	289.9	28.0		1.45%	757.58	N																			
1581+00							752.87	Y			2	15	1581+00	752.60		748.71					24	2				X	
1581+00		181	121.3	7.9			752.87	N																			
1582+81							750.05	Y			2	50	1525+85 "SER-3"	746.00		738.55					25	2				X	
1584+31		369	247.3	16.0			747.91	N																			
1588+00							742.36	Y			2	23	1588+00	741.50		739.48					26	2				X	
1588+00		400	268.0	17.3			742.36	N																			
1592+00							736.05	Y			2	23	1592+00	734.80		732.80					27	2				X	
1592+00		400	356.8	34.4		2.87%	736.05	N																			
1596+00							724.57	Y			2	23	1596+00	724.40		715.00					28	2				X	
1596+00		285	254.3	24.6			724.57	N																			
1598+85							716.59	Y			2	24	1598+85	716.40		704.50					29	2				X	
SUBTOTAL		**4904**	**4009**	**352**							**36**	**378**															

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB DRAWN: ETD
CHECKED: RT CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
RAMP - "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	UD-10 / 164 of 173
CONTRACT	PROJECT
IR-33742	1006075

1 9/25/12 - Updated Notes And Labels

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe		Geotextile for Underdrains	Aggregate for Underdrains	HMA for Underdrains	Special Grade	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill	HMA for Underdrains	Outlet Protector No. ___	Outlet Protector Type	Location				Remarks
	4"	6"																					Outside Left	Median Left	Median Right	Outside Right	
	LFT	LFT	SYS	CYS	TONS	%		(Y/N)				LFT							CYS	TONS							
Line "NWR-3" Outside Left																											
1550+41		400	356.8	34.4			768.35	N																			
1554+41							766.51	Y			2	55	1554+41	763.50		761.15					30	2				X	
1554+41		359	320.3	30.9		0.80%	767.51	N																			
1558+00							764.65	Y			2	21	1558+00	764.40		759.78					31	2	X				
1558+00		400	356.8	34.4			764.65	N																			
1562+00							755.69	Y			2	21	1562+00	755.50		743.75					32	2	X				
1562+00		300	267.6	25.8			755.69	Y			2	21	1562+00	755.50		743.75					32	2	X				
1565+00							749.89	Y			2	18	1565+00	749.60		748.5					33	2	X				
1565+00		375	334.5	32.3		1.00%	749.89	Y			2	18	1565+00	749.60		748.50					33	2	X				
1568+75							746.16	Y			2	15	1568+75	746.12		745.65					34	2	X				
1568+75		275	184.3	11.9			746.16	Y			2	15	1568+75	746.12		745.65					34	2	X				
1571+50							748.73	Y			2	16	1571+50	748.50		744.04					35	2	X				
1571+50		255	227.5	22.0		0.99%	748.73	Y			2	16	1571+50	748.50		744.04					35	2	X				
1574+05							751.25	N																			
1576+14		161	143.7	13.9			754.55	Y			2	20	1576+14	754.40		729.5					36	2	X				
1577+75							755.63	N																			
1577+75		150	133.8	12.9		0.60%	755.63	Y			2	21	1577+75	755.40		743.13					37	2	X				
1579+25							756.53	N																			
1579+25		400	356.8	34.4		1.19%	756.53	N																			
1583+25							751.79	Y			2	35	1583+25	751.69		750.92					38	2	X				
1583+25		375	251.3	16.2			751.79	N																			
1587+00							746.15	Y			2	18	1587+00	746.00		743.1					39	2	X				
1587+00		400	356.8	34.4		1.78%	746.15	Y			2	18	1587+00	746.00		743.1					39	2	X				
1591+00							739.02	Y			2	21	1591+00	738.80		737.36					40	2	X				
1591+00		400	356.8	34.4		2.66%	739.02	N																			
1595+00							728.37	Y			2	13	1595+00	728.30			997	727.00									
1595+00		375	334.5	32.3			728.37	N																			
1598+75							716.89	Y			2	10	1598+75	716.80			996	716.3									
SUBTOTAL		**4625**	**3982**	**370**							**36**	**372**															

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD

CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
RAMP - "NWR-3"

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-11	165 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:23:23 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\YTransp\CaddWood\SY\10_Tables\W_Underdrain Tables\25627500004-S9_NWR.dgn

1 9/25/12 - Updated Notes And Labels

UNDERDRAIN TABLE

Underdrain Pipe Limits	Type 4 Pipe 4"	Type 4 Pipe 6"	Geotextile for Underdrains	Aggregate for Underdrains	HMA for Underdrains	Special Grade	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill	HMA for Underdrains	Outlet Protector No. ___	Outlet Protector Type	Outside Left	Median Left	Median Right	Outside Right	Remarks
UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS		Location				
	LFT	LFT	SYS	CYS	TONS	%		(Y/N)				LFT							CYS	TONS							
Line "SEL-3" Outside Right																											
515+30		245	164.2	10.6		0.20%	754.47	Y			2	45	515+30	753.5		748.91					41	2	X				
517+75							753.98	N																			
517+75		250	167.5	10.8			756.64	Y			2	20	517+75	756.45		753.55					42	2				X	
520+25							759.15	N																			
520+25		393	263.4	17.0			759.15	Y			2	11	520+25	759.00		756.89					43	2				X	
524+18							761.68	N																			
526+42		297	265.0	25.6		0.63%	761.68	Y			2	15	526+42	761.50		746.34					44	2				X	
529+39							763.56	N																			
529+39		361	322.1	31.1			763.56	N																			
533+00							758.78	Y			2	14	533+00	758.70		757.3					45	2				X	
533+00		400	268.0	17.3			759.78	N																			
537+00							748.16	Y			2	11	537+00	748.00		743.23					46	2				X	
537+00		400	268.0	17.3			748.16	N																			
541+00							738.47	Y			2	14	541+00	738.25		735.97					47	2				X	
SUBTOTAL		**2346**	**1718**	**130**							**14**	**130**															

William James Williams
REGISTERED
No. 10810125
STATE OF INDIANA
PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB — DRAWN: ETD
CHECKED: RT — CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
RAMP - "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE	
N/A		
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-12	166 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/3/2012
TIME: 10:37:44 AM
LOCATION: N:\Projects\25627500\Y_Drawings\Y4_Trans\Ytransp\Cadd\Road\S9\10_Tables\R_Underdrain Tables\25627500UD05-S9_SEL.dgn

1 — 9/25/12 - Updated Notes And Labels

UNDERDRAIN TABLE

Underdrain Pipe Limits	Type 4 Pipe 4" LFT	Type 4 Pipe 6" LFT	Geotextile for Underdrains SYS	Aggregate for Underdrains CYS	HMA for Underdrains TONS	Special Grade %	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe LFT	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill CYS	HMA for Underdrains TONS	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
Line "SEL-3" Outside Left																											
513+91		359	240.6	15.6			750.18	Y			2	18	513+91	750.00		744.16					48	2	X				
517+50							756.71	N																			
517+50		400	268.0	17.3			756.71	Y			2	11	517+50	756.67		755.69					49	2	X				
521+50							760.44	Y			2	11	521+50	760.40		759.57					50	2	X				
521+50		268	179.6	11.6			760.44	Y			2	11	521+50	760.40		759.57					50	2	X				
524+18							762.16	N																			
526+42		324	289.1	27.9			762.60	Y			2	17	526+42	762.40		726.9					51	2	X				
529+66							765.17	N																			
529+66		400	356.8	34.4			765.17	N																			
533+66							758.98	Y			2	40	533+66	757.00		755.58					52	2				X	
533+66		334	223.8	14.5			759.89	Y			2	40	533+66	757.00		755.58					52	2	X				
537+00							750.12	Y			2	38	537+00	750.00		748.58					53	2	X				
537+00		400	268.0	17.3			750.12	N																			
541+00							740.03	Y			2	41	541+00	738.00		736.00					54	2				X	
SUBTOTAL		**2485**	**1826**	**139**							**18**	**227**															

William James Williams REGISTERED No. 10810125 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL: DESIGN ENGINEER 9/4/2012 DATE

DESIGNED: JB DRAWN: ETD
CHECKED: RT CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
RAMP - "SEL-3"

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	UD-13 / 167 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/3/2012
TIME: 10:37:53 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\Ytransp\Cadd\Road\S9\10_Tables\R_Underdrain Tables\25627500UD06-S9_SEL.dgn

1 9/25/12 - Updated Notes And Labels

UNDERDRAIN TABLE

UNDERDRAIN PIPE

Underdrain Pipe Limits	Type 4 Pipe 4" (LFT)	Type 4 Pipe 6" (LFT)	Geotextile for Underdrains (SYS)	Aggregate for Underdrains (CYS)	HMA for Underdrains (TONS)	Special Grade (%)	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required (Y/N)	Connect Underdrain Pipe to Structure No. ___	Structure Invert Elevation
Line "SER-3" Outside Right										
1511+75		225	200.7	19.4		0.20%	717.01	N		
1514+00							716.56	Y		
1514+00		400	356.8	34.4			716.96	Y		
1518+00							723.81	N		
1518+00		400	356.8	34.4			723.81	Y		
1522+00							737.80	N		
1522+00		400	356.8	34.4			737.80	Y		
1526+00							747.08	N		
1526+00		131	87.8	5.7			748.08	N		
1527+31							747.02	Y		
SUBTOTAL		**1556**	**1359**	**128**						

OUTLET PIPE / OUTLET PROTECTORS

Underdrain Pipe Limits	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe (LFT)	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No. ___	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No. ___	Structure Invert Elevation	B Borrow for Structure Backfill (CYS)	HMA for Underdrains (TONS)	Outlet Protector No. ___	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
Line "SER-3" Outside Right																	
1511+75																	
1514+00	2	15	1514+00	716.40		713.15					55	2				X	
1514+00	2	15	1514+00	716.40		713.15					55	2				X	
1518+00																	
1518+00	2	15	1518+00	723.60		721.13					56	2				X	
1522+00																	
1522+00	2	13	1522+00	737.60		736.05					57	2				X	
1526+00																	
1526+00																	
1527+31	2	13	1527+31	746.80		739.51					58	2				X	
SUBTOTAL	**10**	**71**															

William James Williams REGISTERED No. 10810125 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD
CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
RAMP - "SER-3"

HORIZONTAL SCALE	BRIDGE FILE
N/A	
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	UD-14 / 168 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/3/2012
TIME: 10:38:02 AM
LOCATION: N:\Projects\25627500\Y Drawings\Y4 Trans\Y Transp\Cadd\Road\S9\10_Tables\R_Underdrain Tables\25627500UD07-S9_SER.dgn

1 — 9/25/12 - Updated Notes And Labels

UNDERDRAIN TABLE

UNDERDRAIN PIPE											OUTLET PIPE										OUTLET PROTECTORS						
Underdrain Pipe Limits	Type 4 Pipe 4"	Type 4 Pipe 6"	Geotextile for Underdrains	Aggregate for Underdrains	HMA for Underdrains	Special Grade	Flow Line Elevation @ Underdrain Pipe Limit	Outlet Pipe Required	Connect Underdrain Pipe to Structure No.	Structure Invert Elevation	45 Degree Elbows Required (1 or 2)	6" Outlet Pipe	Outlet Station	Outlet Elevation	Outlet at Outlet Protector No.	Ditch Flow Line Elevation at Outlet Protector	Connect Outlet Pipe to Structure No.	Structure Invert Elevation	B Borrow for Structure Backfill	HMA for Underdrains	Outlet Protector No.	Outlet Protector Type	Location: Outside Left	Location: Median Left	Location: Median Right	Location: Outside Right	Remarks
	LFT	LFT	SYS	CYS	TONS	%		(Y/N)				LFT							CYS	TONS							
Line "SER-3" Outside Left																											
1515+21		379	338.1	32.6			718.79	Y			2	12	1515+21	718.50		714.5					59	2	X				
1519+00							728.92	N																			
1519+00		300	267.6	25.8		3.85%	728.92	Y			2	16	1519+00	728.70		715.5					60	2	X				
1522+00							740.48	N																			
1522+00		388	260.0	16.8			740.48	Y			2	22	1522+00	740.20		736.79					61	2	X				
1525+88							749.75	N																			
SUBTOTAL		**1067**	**866**	**75**							**6**	**50**															

William James Williams, Registered No. 10810125, State of Indiana, Professional Engineer

RECOMMENDED FOR APPROVAL [signature] DESIGN ENGINEER 9/4/2012 DATE

DESIGNED: JB | DRAWN: ETD

CHECKED: RT | CHECKED: WJW

INDIANA DEPARTMENT OF TRANSPORTATION

UNDERDRAIN TABLE
RAMP - "SER-3"

HORIZONTAL SCALE	BRIDGE FILE	
N/A		
VERTICAL SCALE	DESIGNATION	
N/A	1006075	
SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	UD-15	169 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 9/25/12 - Updated Notes And Labels

DATE: 10/2/2012
TIME: 10:38:11 AM

GUARDRAIL SUMMARY TABLE

LOCATION		W-BEAM GUARDRAIL LENGTH																												
FROM STATION	TO STATION	LEFT	MEDIAN LEFT	MEDIAN RIGHT	RIGHT	STANDARD POST AT 6' 3" SPA.	STANDARD POST AT 3' 1.5" SPA.	STANDARD POST AT 1' 6.75" SPA.	DOUBLE FACED AT 6' 3" SPA.		TEMP. STD. POST AT 6'-3" SPA.		SHOP CURVED AT ___ m SPA.	NESTED GUARDRAIL	GUARDRAIL FLARE RATE	GUARDRAIL TRANSITION TYPE TGB	CONCRETE BRIDGE RAIL TRANSITION TYPE TFT	REINFORCING STEEL EPOXY COATED	TEMP. GR TRANSITION TYPE TGB	GUARDRAIL END TREATMENT MS	GUARDRAIL END TREATMENT OS	CURVED TERMINAL END	CONCRETE BARRIER 33 IN., MODIFIED	CONCRETE BARRIER 33 IN.	TEMP. GR END TREATMENT OS		RAILING, CONCRETE, C	CONCRETE BRIDGE RAILING TRANSITION, TBT	CONCRETE BARRIER 45 IN., MODIFIED	IMPACT ATTENUATOR, R1, W1, TL-3	IMPACT ATTENUATOR, R2, W1, TL-3	REMARKS
						LFT	LFT	LFT	LFT	LFT	LFT	LFT	LFT	LFT		EACH	EACH	LB	EACH	EACH	EACH	EACH	LFT	LFT	EACH		LFT	EACH	LFT	EACH	EACH	
Line "A"/"PR-A"																														
1461+58.83	1464+33.83			X					250						30	1				1										
1461+62.90	1464+19.15				X	231.25										1					1									
1467+98.12	1470+73.12		X						250						30	1				1										
1468+12.85	1470+69.10	X				231.25										1					1									
1473+43.45	1493+62.20				X	1,993.75										1					1									
1490+60.85	1493+35.85			X					250						30	1				1										
1493+85.66	1496+41.91	X				231.25										1					1									
1494+12.00	1496+87.00		X						250						30	1				1										
1498+50.00	1499+25.00				X	75.00															1	1								To protect Sign
1515+53.32	1522+22.07				X	643.75										1				1										
1522+22.07	1522+82.45				X												2	1724									21				
1522+82.45	1525+48.86				X	225.00										2															
1525+48.86	1526+07.47				X												1	862									39				
1515+37.50	1522+75.00			X					737.5											1		1								
1522+94.34	1525+90.56		X																										296.2		Type B
1526+26.56	1544+80.00		X																										1853.4		Type B
1544+80.00	1553+25.00		X																										845.0	1	Transition to Std. Ht.
1526+34.92	1526+98.91	X																					64.0								Type A2
1526+98.91	1530+60.00	X																					361.1								Type A1
1530+60.00	1530+80.00	X																					20.0								Transition to Std. Ht.
1530+80.00	1534+33.63	X																						353.6						1		
Line "NWR-3"																																
1561+36.07	1574+06.44	X				1,193.75										1					1										Measured Along Curve
1572+81.16	1574+27.77				X	100										1					1										
1576+13.56	1581+99.81				X	581.25										1					1										
1561+36.07	1574+06.44	X									1,218.75								1						1						Temporary for MOT
1578+83.85	1582+81.32				X						67.50								1						1						Temporary for MOT
Line "SER-3"																																
1516+00.00	1520+00.00	X				400.00														1											
Line "SEL-3"																																
523+09.43	524+34.43				X	50.00										1					1										
526+41.74	527+66.74				X	50.00										1					1										
540+46.79	541+90.92				X	68.75										1					1										
542+49.05	545+33.77				X	212.50										1					1										
522+93.91	524+18.91	X				50.00										1					1										
526+26.22	527+51.22	X				50.00										1					1										
541+90.92	542+49.05	X																									58				
529+66.76	533+48.35	X																									421			1	
545+33.77	545+98.08	X																									64				
Line "Bolin Lane"																																
18+01.50	20+64.00				X	262.5															2										
19+30.00	21+92.50	X				262.5															2										
TOTALS						6,912.50			1,737.5		1,286.25					20	3	2586	2	7	18	2	445.1	353.6	2		603		2994.7	2	1	

1 09/25/12 - Miscellaneous revisions

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: BMG | DRAWN: BMG

CHECKED: KCH | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

GUARDRAIL TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	GT-01	170 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE: 10/1/2012
TIME: 10:45:49 AM

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION STATION	LEFT	RIGHT	MEDIAN	CROSS	OFFSET FT	SIZE INCHES	PIPE TYPE	DESCRIPTION: MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH LFT	SKEW	COVER LFT	FLOW LINE UP STREAM ELEV.	FLOW LINE DOWN STREAM ELEV.	SERVICE LIFE YRS.	SITE DESIGNATION	pH	STRUCTURE BACKFILL TYPE	STRUCTURE BACKFILL CYS	BACKFILL METHOD	# 8 COARSE AGGREGATE CYS	TYPE	GEOTEXTILES SYS	REVETMENT RIPRAP TON	CLASS I RIPRAP TON	CLASS II RIPRAP TON	CONCRETE, CLASS A, FOR STR. CYS	CONCRETE PIPE ANCHOR EA.	VIDEO INSPECTION LFT	GRATED BOX END SECTION TYPE	GRATED BOX END SECTION EA.	PIPE END SECTION 15"	PIPE END SECTION 18"	PIPE END SECTION 24"	PIPE END SECTION 30"	PIPE END SECTION 36"	CONNECT TO STR.	REMARKS
	LINE 'A'																																					
909	1464+00			X			18	2	Inlet N-12	78.0		1.5	662.97	662.27	75	NA	6.0	1	36.4	1			40	6					78.0				1					
910	1470+00			X			18	2	Inlet N-12	78.0		1.5	648.43	647.75	75	NA	6.0	1	36.4	1			40	30					78.0				1					
911	1473+00			X			18	2	Inlet N-12	78.0		1.3	646.41	645.75	75	NA	6.0	1	36.4	1			40	6					78.0				1					
912	1476+00			X			18	2	Inlet N-12	86.0		1.7	648.73	645.00	75	NA	6.0	1	87	1			56	7					86.0				1					
913	1482+00			X			18	2	Inlet N-12	78.0		1.3	665.15	664.50	75	NA	6.0	1	36.4	1			40	29					78.0				1					
134	1483+90				X		336x120	1	Precast 3-Sided Arch	550.0	45		638.48	637.33	75	A	5.0			1	4320		2320		3760	190												#8 Aggregate For Special Backfill
914	1488+00			X			18	2	Inlet N-12	80.0		1.4	683.29	682.50	75	NA	6.0	1	36.4	1			40	21					80.0				1					
	LINE "PR-A"																																					
916	1495+00			X			18	2	Inlet N-12	84.0		2	699.42	696.25	75	NA	6.0	1	64	1			60.7	36					84.0				1					
917	1495+25				X		36	1	RCP	310.0	0	21	682.50	670.77	75	A	5.0	1	453	1			233		50											2		Sumped 6"
975	1500+15				X		48	1	RCP	450.0	44	16	694.07	674.22	75	A	5.0			1	520		467		112			2										Sumped 6"
																																						#8 Aggregate For Special Backfill
918	1500+50			X			18	2	Inlet N-12	94.0		3	707.83	703.00	75	NA	6.0	1	42	1			21	16					94.0				1					
919	1506+00			X			18	2	Inlet N-12	94.0		1.5	712.89	709.92	75	NA	6.0	1	39	1			6	5					94.0				1					
976	1509+65				X		72	1	RCP	306.0	14	15	702.11	689.85	75	A	5.0			1	720		50		56			2										Sumped 6"
																																						#8 Aggregate For Special Backfill
920	1512+00			X			18	2	Inlet N-12	102.0		4	714.21	707.50	75	NA	6.0	1	58	1			15	12					102.0				1					
977	1512+95				X		48	1	RCP	252.0	7	8	710.46	695.70	75	A	5.0			1	403		39			55		2										Sumped 6"
																																						#8 Aggregate For Special Backfill
921a	1518+00			X			18	2	Inlet N-12	92.0		3	720.13	717.26	75	A	6.0	1	20	1			32	24					92.0				1					
938	1518+77				X		96x48	1	Precast Box Culvert	238.0	18	8	715.00	701.00	75	A	5.0			1	2856		220	220														Sumped 6"
																																						#8 Aggregate For Special Backfill
989	1523+25		X				15	2	Inlet H-5 w/				729.88	729.55	75	NA	6.0															1						
							15		Slotted Drain	70.0		2	729.38	725.79	75	NA	6.0	1	27	1									70.0								990	
990	1523+45	X				70	15	2	Manhole, Type C-4	64.0			725.29	719.70	75	NA	6.0	1	25	1									64.0			1					936	
991	1525+25	X				80	15	2	Manhole, Type C-4	136.0			725.00	720.70	75	NA	6.0	1	52	1									136.0									
992	1526+25	X				80	15	2	Manhole, Type C-4	98.0			731.21	725.00	75	NA	6.0	1	38	1									98.0								991	
993	1526+50			X			15		Inlet H-5 w/				736.77	736.44	75	NA	6.0	1																				
		X					15	2	Slotted Drain	44.0		2	736.27	733.98	75	NA	6.0	1	17	1									44.0								994	
994	1526+50	X					15		Inlet H-5 w/				733.98	733.65	75	NA	6.0	1																				
		X					15	2	Slotted Drain	34.0		2	733.48	731.71	75	NA	6.0	1	13	1									34.0								992	
923	1529+00			X			15		Inlet H-5 w/				742.27	742.10	75	NA	6.0																					
		X					15	2	Slotted Drain	44.0		2	741.94	739.28	75	NA	6.0	1	17	1									44.0			1					995	
995	1529+00	X					15		Inlet H-5 w/				739.28	738.95	75	NA	6.0																					
		X					15	2	Slotted Drain	48.0		2	738.78	736.52	75	NA	6.0	1	18	1			4	3					48.0			1						
924	1533+00			X			15		Inlet H-5				750.75	750.58	75	NA	6.0																					
		X					15	2	Pipe	58.0		2	750.42	748.24	75	NA	6.0	1	22	1			4	3					58.0			1						
925	1536+00			X			15		Inlet H-5				757.11	756.94	75	NA	6.0																					
		X					15	2	Pipe	98.0		2	756.78	745.66	75	NA	6.0	1	38	1			4	3					98.0			1						
926	1539+00			X					Inlet H-5 w/				763.32	763.15	75	NA	6.0																					
		X					15	2	Slotted Drain	100.0		2	762.99	756.84	75	NA	6.0	1	38	1			4	3					100.0			1						
927	1542+00			X					Inlet H-5				767.49	767.32	75	NA	6.0																					
		X					15	2	Pipe	86.0		2	767.16	760.10	75	NA	6.0	1	33	1			4	3					86.0			1						
928	1547+50			X					Inlet H-5				768.03	767.86	75	NA	6.0																					
		X					15	2	Pipe	94.0		2	767.70	764.34	75	NA	6.0	1	36	1			4	3					94.0			1						
929	1550+44			X					Inlet H-5 w/				766.60	766.43	75	NA	6.0																					
		X					15	2	Slotted Drain	84.0		2	766.27	765.66	75	NA	6.0	1	32	1			4	3					84.0			1						
930	1551+50			X					Inlet H-5				767.94	767.77	75	NA	6.0																					
			X				15	2	Pipe	80.0		2	767.60	766.93	75	NA	6.0	1	31	1			4	3					80.0			1						
931	1553+00			X					Inlet H-5				768.42	768.25	75	NA	6.0																					
			X				15	2	Pipe	78.0		2	768.08	767.75	75	NA	6.0	1	30	1			4	3					78.0			1						
998	1546+22.00	X				48.9	15	2	Cleanout Port, Type 2	59.0		2	766.62	766.00	75			1	23	1			6	2								1						116' 12" Slotted Drain @ Var. Depth
999	1534+49.90				X	51	15	2	Cleanout Port, Type 2	121.0		2	754.49	752.16	75			1	47.1	1			6	2								1						250' 12" Slotted Drain @ Var. Depth
1003	1514+03.28				X	55.3	15	2	Cleanout Port, Type 2	45.0		3	715.03	714.59	75			1	24.1	1			6	2								1						80' 12" Slotted Drain @ Var. Depth
	SUBTOTAL																		1505.3		8819		3773	445	3978	245	0	6	2160	0	0	15	11	0	0	2		

MARK D. ORTON REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL [signature] 9/6/2012
DESIGN ENGINEER DATE

DESIGNED: MDO DRAWN: KCH
CHECKED: HCF CHECKED: MDO

INDIANA
DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075
SURVEY BOOK	PAGE / SHEETS
ELECTRONIC / AERIAL	ST-01 / 171 of 173
CONTRACT	PROJECT
IR-33742	1006075

DATE: 10/1/2012 TIME: 10:46:00 AM

⚠ 09/25/12 - Miscellaneous revisions

STRUCTURE DATA

STRUCTURE NUMBER	LOCATION: STATION	LEFT	RIGHT	MEDIAN	CROSS	OFFSET (FT)	SIZE (INCHES)	DESCRIPTION: PIPE TYPE	MANHOLE, INLET, CATCH BASIN, OR SPECIALTY STRUCTURE	LENGTH (LFT)	SKEW	FLOW LINE: COVER (LFT)	UP STREAM ELEV.	DOWN STREAM ELEV.	SERVICE LIFE (YRS.)	SITE DESIGNATION	pH	STRUCTURE BACKFILL: TYPE	STRUCTURE BACKFILL: CYS	BACKFILL METHOD	#8 COARSE AGGREGATE (CYS)	TYPE	GEOTEXTILES (SYS)	REVETMENT RIPRAP (TON)	CLASS I RIPRAP (TON)	CLASS II RIPRAP (TON)	CONCRETE, CLASS A, FOR STR. (CYS)	CONCRETE PIPE ANCHOR (EA.)	VIDEO INSPECTION (LFT)	GRATED BOX END SECTION: TYPE	GRATED BOX END SECTION: EA.	PIPE END SECTION: 15"	18"	24"	30"	36"	CONNECT TO STR.	REMARKS
LINE "SER-3"																																							
980	1519+09.61				X		42	1	RCP	114.0	5	11	720.00	715.00	75	A	5.0			1	133.29		45	45				2												Sumped 6"
LINE "NWR-3"																																							
981	1561+06.97				X		54	1	RCP	264.0	22	29	730.00	725.00	75	A	5.0			1	447.98		27			21		2											Sumped 6"
985	1576+44.58				X		72	1	RCP	250.0	17	18	729.00	720.00	75	A	5.0			1	664.58		111	111				2											Sumped 6"
987	1573+72.44				X		72	1	RCP	250.0	31	32	718.00	708.00	75	A	5.0			1	664.58		111	111				2											Sumped 6"
988	1586+00				X		24	1	RCP	110.0	0	2.7	741.16	740.61	75	A	5.0			1	60.214																	
996	1598+75			X			18	2	Inlet N-12	90.0	0	2	716.30	715.00	75	A	5.0	1	39.5	1																			
997	1595+00			X			18	2	Inlet N-12	92.0	0	2	727.00	726.00	75	A	5.0	1	40.4	1																			
1001	1583+58.13				X	18.5			Cleanout Port, Type 2																													1002	70' 12" Slotted Drain @ Var. Depth
1002	1582+83.28				X	26	15	2	Cleanout Port, Type 2	38.0		1.5	747.01	746.64	75			1	12.1	1			6	2									1						70' 12" Slotted Drain @ Var. Depth
LINE "NER-3"																																							
982	525+43.13				X		34x53	1	Elliptical	100.0	19	4	747.00	746.00	75	A	5.0	1	142.18	1								2											Sumped 6"
983	519+49.30				X		30	1	RCP	102.0	11	4	750.00	749.00	75	A	5.0	1	74.66	1															2				Sumped 6"
1000	515+26.75	X				19	15	2	Cleanout Port, Type 2	52.0		2	751.37	750.89	75			1	20.30	1			6	2									1						135' 12" Slotted Drain @ Var. Depth
LINE "SEL-3"																																							
984	523+97.07				X		54	1	RCP	250.0	20	15	736.00	731.00	75	A	5.0			1	424.23		89	89				2											Sumped 6"
986	526+69.87				X		54	1	RCP	250.0	23	23	735.50	721.00	75	A	5.0			1	424.23		151	151				2											Sumped 6"
LINE "BOLIN LANE"																																							
915	17+45				X		36	1	RCP	160.0	33	2.5	653.00	651.75	75	A	5.0	1	160	1			45	38													2		
LINE "PR-2-GLENVIEW DRIVE"																																							
935	6+10				X		24	1	RCP	90.0	7	1	661.57	661.00	75	A	5.0	1	62	1			52.9	28												2			
LINE "PR-GLENVIEW DRIVE"																																							
948	12+25				X		24	1	RCP	70.0	45	2	684.05	683.04	75	A	5.0	1	46	1			49.8	93												2			
LINE "WHEATON COURT"																																							
950	5+25	X					12	1	RCP	36.0	0	1	668.00	664.50	50	A	5.0	1	14	3														2					
SHEET ST-02 SUBTOTAL																			611		2,819		694	670	0	21	0	14	0	0	0	4	0	4	2	2		
SHEET ST-01 SUBTOTAL																			1,505		8,819		3,773	445	3,978	245	0	6	2,160	0	0	15	11	0	0	2		
	TOTAL																		**2,116**		**11,638**		**4,467**	**1,115**	**3,978**	**266**	**0**	**20**	**2,160**	**0**	**0**	**19**	**11**	**4**	**2**	**4**		

MARK D. ORION REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: KCH

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

STRUCTURE DATA TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	ST-02	172 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

DATE 10/1/2012
TIME 10:46:11 AM

1 09/25/12 - Miscellaneous revisions

1

STRUCTURE NUMBER

		909	910	911	912	913	914	916	917	975	918	919	976	920	977	921a	989	990	991	992	993	994	923
PIPE TYPE / SHAPE		2	2	2	2	2	2	2	1	1	2	2	1	2	1	2	2	2	2	2	2	2	2
SMOOTH PIPE SIZE		18	18	18	18	18	18	18	36	48	18	18	72	18	48	18	15	15	15	15	15	15	15
CORRUGATED PIPE SIZE																							
RCP/RCHEP (S)	CLASS	II	II	II	II	II	II	II	IV	III	II	II	III	II	II	II	II	II	II	II	II	II	II
	$D_{0.01}$ RATING	1000	1000	1000	1000	1000	1000	1000	1500	1250	1000	1000	1350	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)		OK	OK	OK	OK	OK	OK	OK			OK	OK		OK		OK	OK	OK	OK	OK	OK	OK	OK
CORRUGATED PE PIPE, TYPE S (S)*		OK	OK	OK	OK	OK	OK	OK			OK	OK		OK		OK	OK	OK	OK	OK	OK	OK	OK
RIBBED PE PIPE (S)*		OK	OK	OK	OK	OK	OK	OK			OK	OK		OK		OK	OK	OK	OK	OK	OK	OK	OK
SMOOTH WALL PE PIPE (S)* / MAXIMUM DR		OK/26	OK/26	OK/26	OK/26	OK/26	OK/26	OK/26			OK/26	OK/26		OK/26		OK/26	OK/26	OK/26	OK/26	OK/26	OK/26	OK/26	OK/26
PROFILE WALL PVC PIPE (S)		OK	OK	OK	OK	OK	OK	OK			OK	OK		OK		OK	OK	OK	OK	OK	OK	OK	OK
SMOOTH WALL PVC PIPE (S)*		OK	OK	OK	OK	OK	OK	OK			OK	OK		OK		OK	OK	OK	OK	OK	OK	OK	OK
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)		OK	OK	OK	OK	OK	OK	OK			OK	OK		OK		OK	OK	OK	OK	OK	OK	OK	OK
CORRUGATED STEEL PIPE / PIPE-ARCH	FULLY BIT. PAVED & LINED (S)	CORR. PROFILE																					
		THICKNESS																					
	ZINC COATED (C)	CORR. PROFILE																					
		THICKNESS																					
	ZINC COATED W/ BPI (C)	CORR. PROFILE																					
		THICKNESS																					
	ALUM. COATED TYPE 2 (C)	CORR. PROFILE																					
		THICKNESS																					
	ALUM. COATED TYPE 2 W/ BPI (C)	CORR. PROFILE																					
		THICKNESS																					
	POLYMER PRECOATED GALVANIZED (C)	CORR. PROFILE																					
		THICKNESS																					
	POLYMER PRECOATED GALVANIZED W/ BPI (C)	CORR. PROFILE																					
		THICKNESS																					
	POLYMER PRECOATED GALVANIZED CORRUGATED STEEL PIPE TYPE 1A (S)	CORR. PROFILE																					
		THICKNESS																					
	FIBER BONDED BITUMINOUS COATED W/ BPI (C)	CORR. PROFILE																					
		THICKNESS																					
	CORRUGATED ALUM. ALLOY PIPE (C)	CORR. PROFILE																					
		THICKNESS																					
	CORRUGATED ALUM. ALLOY PIPE W/ BPI (C)	CORR. PROFILE																					
		THICKNESS																					
	STR. PLATE ALUMINUM ALLOY PLATE (C)	CORR. PROFILE																					
		THICKNESS																					
	STR. PLATE ALUMINUM ALLOY PLATE W/ CFP (C)	CORR. PROFILE																					
		THICKNESS																					
	STR. PLATE STEEL PIPE (C)	CORR. PROFILE																					
		THICKNESS **																					
	STR. PLATE STEEL PIPE W/ CFP (C)	CORR. PROFILE																					
		THICKNESS **																					

STRUCTURE NUMBER

		995	924 to 931	980	981	985	987	988	996	997	982	983	984	986	915	935	948	950
PIPE TYPE / SHAPE		2	2	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1
SMOOTH PIPE SIZE		15	15	42	54	72	72	24	18	18	34x53	30	54	54	36	24	24	12
CORRUGATED PIPE SIZE																		
RCP/RCHEP (S)	CLASS	II	II	II	IV	IV	V	II	II	II	HE-A	II	III	IV	IV	II	II	IV
	$D_{0.01}$ RATING	1000	1000	1000	1750	1500	2250	1000	1000	1000	600	1250	1250	1500	2000	1000	1000	1500
NON-REINFORCED CONCRETE PIPE, CLASS 3 (S)		OK	OK						OK	OK								
CORRUGATED PE PIPE, TYPE S (S)*		OK	OK						OK	OK								
RIBBED PE PIPE (S)*		OK	OK						OK	OK								
SMOOTH WALL PE PIPE (S)* / MAXIMUM DR		OK/26	OK/26						OK/26	OK/26								
PROFILE WALL PVC PIPE (S)		OK	OK						OK	OK								
SMOOTH WALL PVC PIPE (S)*		OK	OK						OK	OK								
VITRIFIED CLAY PIPE, EXTRA STRENGTH (S)		OK	OK						OK	OK								
CORRUGATED STEEL PIPE / PIPE-ARCH	FULLY BIT. PAVED & LINED (S)	CORR. PROFILE																
		THICKNESS																
	ZINC COATED (C)	CORR. PROFILE																
		THICKNESS																
	ZINC COATED W/ BPI (C)	CORR. PROFILE																
		THICKNESS																
	ALUM. COATED TYPE 2 (C)	CORR. PROFILE																
		THICKNESS																
	ALUM. COATED TYPE 2 W/ BPI (C)	CORR. PROFILE																
		THICKNESS																
	POLYMER PRECOATED GALVANIZED (C)	CORR. PROFILE																
		THICKNESS																
	POLYMER PRECOATED GALVANIZED W/ BPI (C)	CORR. PROFILE																
		THICKNESS																
	POLYMER PRECOATED GALVANIZED CORRUGATED STEEL PIPE TYPE 1A (S)	CORR. PROFILE																
		THICKNESS																
	FIBER BONDED BITUMINOUS COATED (C)	CORR. PROFILE																
		THICKNESS																
	FIBER BONDED BITUMINOUS COATED W/ BPI (C)	CORR. PROFILE																
		THICKNESS																
	CORRUGATED ALUM. ALLOY PIPE (C)	CORR. PROFILE																
		THICKNESS																
	CORRUGATED ALUM. ALLOY PIPE W/ BPI (C)	CORR. PROFILE																
		THICKNESS																
	STR. PLATE ALUMINUM ALLOY PLATE (C)	CORR. PROFILE																
		THICKNESS																
	STR. PLATE ALUMINUM ALLOY PLATE W/ CFP (C)	CORR. PROFILE																
		THICKNESS																
	STR. PLATE STEEL PIPE (C)	CORR. PROFILE																
		THICKNESS **																
	STR. PLATE STEEL PIPE W/ CFP (C)	CORR. PROFILE																
		THICKNESS **																

LEGEND

RCP-	REINFORCED CONCRETE PIPE
RCHEP-	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL PIPE
PE-	POLYETHYLENE
DR-	DIMENSION RATIO
PVC-	POLYVINYL CHLORIDE
BIT-	BITUMINOUS
CORR-	CORRUGATION
BPI-	BITUMINOUS PAVED INVERT
ALUM-	ALUMINUM
STR-	STRUCTURAL
CFP-	CONCRETE FIELD PAVING
CIR-	CIRCULAR PIPE
DEF-	DEFORMED PIPE
(S)-	SMOOTH PIPE MATERIAL
(C)-	CORRUGATED PIPE MATERIAL
OK-	ACCEPTABLE FOR USE
(LS)-	LOCK SEAM PIPE REQUIRED
*-	REFER TO STANDARD DRAWING 715-PHCL-18 OR 19 FOR NOMINAL DIAMETER APPROPRIATE FOR PAY ITEM DIAMETER
**-	TABULATED THICKNESS REFERS TO TOP & SIDE PLATES. BOTTOM PLATES SHALL BE OF NEXT GREATER AVAILABLE THICKNESS.

MARK D. ORLICH REGISTERED No. 18831 STATE OF INDIANA PROFESSIONAL ENGINEER

RECOMMENDED FOR APPROVAL — DESIGN ENGINEER — 9/6/2012 DATE

DESIGNED: MDO | DRAWN: BDM

CHECKED: HCF | CHECKED: MDO

INDIANA DEPARTMENT OF TRANSPORTATION

PIPE MATERIAL TABLE

HORIZONTAL SCALE	BRIDGE FILE
N/A	N/A
VERTICAL SCALE	DESIGNATION
N/A	1006075

SURVEY BOOK	PAGE	SHEETS
ELECTRONIC / AERIAL	PT-01	173 of 173
CONTRACT	PROJECT	
IR-33742	1006075	

1 09/25/12 - Miscellaneous revisions